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East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2378

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EAST EUROPE REPORT

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YUGOSLAV TRADE WITH EASTERN EUROPE, MONGOLIA, CHINA

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 19 Jan 83 p 3

[Article by Anda Petrovic]

[Excerpt] The Worldwide Exchange of Goods Grows Constantly
The structure of the exchange of goods between Yugoslavia and the countries mentioned corresponds to the interests, needs and possibilities of those who participate in the exchange. Since it develops according to the good list which are reconciled every year (except with China), the volume and value also correspond to the same criteria. If in some years a disturbance arises in the ideal balance, the partners endeavor to reconcile that in the subsequent years by increasing deliveries from the side in which the deficit arose. This manner of exchange, if it also has some weaknesses, has a positive side which prevents a large imbalance which otherwise brakes normal cooperation. This is, indeed, possible, and because the majority of these partners of Yugoslavia are at such a level of general economic development, a balanced exchange is also possible, taking into regard also the level of development of the Yugoslav economy, or even, the expressed complimentary elements in some branches of the economy.

Unused Gas

In an era of shortages of energy sources one would consider how to use everything to the maximum. There is, however, one "situation" which is not being exploited. An arrangement between our country and the Soviet Union concerning deliveries of natural gas by pipeline could to a significant degree alleviate energy shortages, especially in Serbia. But, the plan to construct a pipeline to the furthest consumers is not completed, so Serbia does not use all the amount it could.

It is expected that the construction of the installation will be completed in the course of 1983 and that gas will flow to those from whom it was intended. Indeed, one part of the gas, which Serbia has not used, is sent, as has been learned, to Slovenia.

If we go through the countries individually, we will see that there are stable trends in the exchange of goods, although not equally with all countries.

Bulgaria is a neighboring country and the two economies know each other well enough. The geographical proximity is a very positive factor for the exchange of goods, but the growth in the last 2 years has not been satisfactory. Nevertheless, a level is maintained which can be a good basis for progress when individual weaknesses and obstacles are surmounted and when exchange partners find truly joint interests, which are in harmony with the economic policies of their own countries. The exchange of goods in 1982, when agreed upon deliveries are completed, will amount to, according to estimates, around 300 million dollars, of which Yugoslav exports will be 130 million and imports 170 million dollars. The greater part of this deficit (which arose because of intervening imports) will be covered by greater converse deliveries and the exchange of services since relations in this sector are reversed. Nevertheless, a smaller payments deficit on the Yugoslav can be expected. It can, however, even be balanced this year. It has already been agreed that the volume of the exchange of goods for 1983 will amount to 370 million dollars, which is balanced at 185 million for each partner.

Hungary in 1982 was a very successful partner in the exchange of goods: the total volume will amount to around 505 million dollars, of which Yugoslav exports will be 260 million, and imports 245 million dollars. And, this difference is balanced by other forms of exchange between the two countries, so that the balance of payments can be expected to be equal. Five hundred seventy million dollars has been concluded for 1983, which is a noticeable increase. Yugoslav exports will amount to 290 million and imports, 280 million dollars. As is known, the most stable part of this exchange is industrial cooperation which is not as numerous as it is lasting and stable.

The German Democratic Republic is a partner with whom the exchange of goods is conducted through clearing house calculations. The latest estimates for 1982 indicate that the result will be 844 million dollars, of which Yugoslav exports will be 444 million and imports around 400 million dollars. A noticeable increase in deliveries from both sides to 1.017 billion dollars is predicted for 1983. Recently, negotiators from the two countries concluded that Yugoslav exports would be 517 million and imports, 500 million dollars. The growth in the exchange of goods with the German Democratic Republic can best be explained by mutual confidence and the complimentary nature of some branches of the two countries' economies.

Good Will Is Strengthened From Advertising

Poland as an economic partner in 1982 could not offer that which in previous years it could because of the known events and the economic state of the country. But, participants in the cooperation can, nevertheless, be satisfied because, with all the difficulties, a relatively high level was maintained, although lower than planned. Especially, long-term dealings were maintained which confirm that they are a stabilizing factor for any economy. The exchange of goods for 1982 according to estimates, will amount to around 405 million dollars, in which Yugoslav exports will be 193 million and imports 212 million dollars. Planning organs and economists of the countries have paid great

attention to the planning of cooperation and the exchange of goods for 1983 and it can be said that they have agreed that it will amount to around 588 million dollars. The protocol still has not been concluded, but there will probably not be greater exceptions. Deliveries must be balanced on both sides at 294 million dollars.

Romania, as one of the neighboring countries, can be, according to all, a significant economic partner. For now, that has not been achieved, really because of difficulties which have arisen in recent years in good part in conjunction with the general world economic recession. The Romanian economy has strongly felt this as is reflected in its business dealings with other countries. The exchange of goods with this country for 1982 will amount to around 220 million dollars of which Yugoslav exports will be 105 million and imports 115 million dollars. We do not dare neglect to say that economists from both countries have endeavored to surmount many difficulties which have appeared in these years. To the volume of the exchange of goods have contributed compensation dealings which were conducted in previous years and which were very useful for both sides due to payment deficits. Even in this case, the main exchanges are deliveries from industrial cooperation. It was agreed that in 1983 the total exchange will grow to 381 million dollars. Agreements made at the end of December about overcoming the problems which arose last year, presage the possibilities that this growth will be realized.

USSR and Czechoslovakia: Small Growth but at a High Level

The Soviet Union is the most significant partner in this group of countries because an expressly large volume of goods are exchanged with it. That is understandable because this country's need for imports is relatively the greatest, and so are the possibilities for exports. The two countries use the complementary nature of a greater number of economic areas very well and deliveries have increased each year at high enough rates. It is estimated that, when the balance settled, the exchange of goods in 1982 will amount to 6.1 billion dollars, for which Yugoslav exports will amount to around 3.1 billion and imports around 3 billion dollars. Besides machinery and equipment which are the significant items in the deliveries of both countries, it is characteristic that the Yugoslav economy obtains from the Soviet Union some raw materials in large quantities such as oil, natural gas, coking coal, cotton and others. From our country to the USSR travel large quantities of goods for wide consumption - clothing, footwear, furniture and others. A noticeable change in the structure of the exchange of goods is not predicted for 1983 and even the growth which is planned, is "small" - only 200 million dollars. Naturally, it is small by percentage, but all the more real because it is an expression of the partner's real monetary needs. Deliveries from Yugoslavia, as is planned in the expectations of the protocol's conclusions, will be 3.25 billion and from the USSR 3.05 billion dollars.

Czechoslovakia is by volume of exchange another country in this group. Economic cooperation with this country grows every year and is developing to mutual satisfaction, although dealings in industrial cooperation are not sufficient, at least not to the extent that would be desired by and favorable to both countries. Last year, according to estimates, goods were delivered from both countries with 1.470 billion dollars, 745 million from Yugoslavia and from Czechoslovakia, 725 million dollars.

The partners have already agreed upon an exchange in 1983 of 1.5 billion dollars, 770 million for Yugoslav and 730 million dollars for Czechoslovak exports. Since there are no problems which would hinder the agreement's realization, the traditional good cooperation is expected to continue.

Yugoslavia has the smallest exchange of goods with Mongolia of all the countries in the group considered. Nevertheless, the exchange grows each year so that even now possibilities are gradually opened. The protocol concluded for 1983 best demonstrates this: an exchange worth 7 million dollars is anticipated, balanced at 3.5 million which is 60 percent more than was anticipated for 1982 by the long-term agreement for the 1981-1985 period. From the Yugoslav side finished products are exchanged, while from Mongolia will be imported pre-dominately livestock products and various types of leather. This is of specific significance for our processing industry.

Realizations Do Not Always Correspond to Predictions

Albania in the last 2 years has become a significant enough economic partner of our country since the mutual exchange of goods has grown significantly. The volume realized in 1982, as estimates show, is 140 million dollars. Both sides have endeavored to maintain the predicted balance at 70 million dollars per country, but this has been disturbed by deliveries of electric energy to our country from Albania. It is expected that this will be equalized in the final balancing and that the year will finish with both countries in balance. The agreement for 1983 was "cautious": it is anticipated that each economy will deliver products worth 63 million dollars - a total of 126 million dollars which is under last year's realization, but - the amount realized in 1982 was greater than planned. If the interests and needs of the two economies demand, there need not be, of course, limitations.

The People's Republic of China has remained an attractive economic partner for Yugoslavia, although in recent years not all has gone as wished. Not entering into an explanation of the causes about which this newspaper has earlier written, it remains for us to conclude that the interest of the partners in each other has not slackened.

Taking into regard economic movements and measures which are born in China, as well as the necessity to fundamentally study the needs and possibilities for cooperation it is expected that the exchange of goods in subsequent years will increase, although there cannot be spectacular changes. The volume of exchange in 1982, as is estimated, amounted to 93 million dollars, Yugoslav exports 63 million and imports 30 million dollars. This imbalance, hence, is a hindrance to the growth of exchange and when the partners discover how to export more from China into our country, the exchange will probably develop more quickly. China has an exceptionally well-developed light industry and insists upon the export of its products. Stores in our country are well supplied with them, but the Yugoslav market is not large enough to accept very large amounts. Some raw materials further remain the subject of discussions between representatives of the two economies and it must be expected that in this and other fields mutually beneficial solutions will be reached.

For 1983 the volume of the exchange of goods is planned for 270 million dollars, for Yugoslav exports around 200 million and for Chinese around 170 million

dollars. However, the so-called indicative lists from which these sums come, do not mean also the acceptance of an obligation, but are only a list of possibilities for which the partners should find joint interest. Of course, without some new measures and agreements of the two countries in their economies, a significant growth in exchange cannot be expected.

At the End of a Significant Experience

Last year was very significant for Yugoslav foreign trade if the needs and tasks are kept in view that the country frees itself of its foreign obligations and that production is maintained on a normal line. The exchange of goods with the socialist countries has obviously contributed enough to the realization of this goal to the highest possible degree. Therefore, even more significant experiences were achieved in the course of this work.

With a general view of the course of the exchange of goods last year, we can distinguish some characteristics, besides those already mentioned.

The circulation of goods impeded from one or the other side in Yugoslavia's trade with these countries was the result of payment difficulties, which, again, is the result of disturbances in international trade in general. This phenomenon was especially expressed in exchanges with Poland and Romania. With the good will of partners, with the activization of all subjects, the problems are, nevertheless, solvable and especially by the "breaking up" of the debts in order to free the area of new dealings in the new year.

The second unfavorable characteristic which is not new since it was known earlier, are the transportation stoppages especially toward the USSR, through Hungary and Romania. Nevertheless, exporters have succeeded in finding solutions and have shortened the delays to an understandable degree, by using river and even sea and air transport. Previous experiences should serve dealings in the new year. Yugoslav exporters must keep this in mind at the time and not ignore the hindrance which has already so many times caused them difficulty. This is also one of the reasons why this year, there are so-called transit deliveries which will take all January. That, however, of course effects the efficient beginning of the new business year.

Last year was characterized by one unfavorable phenomenon - by the inability of partners to pay for goods received, but the solution for this was found in compensatory dealings. More agreements were issued in the Economic Chamber of Yugoslavia for such dealings to the value of more than 1.5 billion dollars in order to fulfill the obligations to deliver the expected goods to the buyers. This is, naturally, proof of the good will on both sides and is positive experience for the given situation.

Emphasis on Stabilizing the Course of Exchange

In Yugoslavia's exchange of goods with this group of countries, deliveries through industrial cooperation and specialization in production occupy a prominent position. There are outstanding examples of long-term and exceptionally successful cooperation, regardless of temporary and minor

difficulties which crop up but are also solved. Concrete cases demonstrate that the exchange of goods is mainly stable when there are more arrangements of cooperation in production. For 1983 there are no new projects for the establishment of cooperative relations. Existing ones are to be maintained and perfected, and that is the factor of stability which characterizes the economic relations with this group of countries in general.

The arrangement about the exchange of automobile parts with Bulgaria, the first of this kind with this country, is considered to be very significant, but this is not the first cooperation in production. Projects are being negotiated which can bear good results. It can be concluded that partners for now are not prepared for new investments, but are satisfied with the stabilization of current arrangements.

The only large dealings with a Yugoslav construction operative concluded is the work on the gas pipeline in the Soviet Union, but it is of great value and has broader prospects. Negotiations are underway with partners in the USSR about the construction of some factories for light industry - for the processing of leather and the manufacture of shoes, the production of furniture, the equipping of tourist projects in the USSR as well as in some other countries. It should be expected that many of the negotiations will be successfully concluded which contribute to the exceeding of the agreed-upon volume of the exchange of goods.

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CEMA COOPERATION IN TRACTORS, AGRICULTURAL MACHINERY DESCRIBED

Prague MEZINARODNI ZEMEDELSKY CASOPIS in Czech No 5, 1982 pp 51-57

[Article by Eng O. Dolezel, secretary of the Czechoslovak delegation in Sector 5 of the Permanent CEMA Commission for Cooperation in the Field of Engineering: "International Cooperation in Specialization and Collaboration in the Production of Tractors and Agricultural Machinery"]

[Text] Problems of agricultural mechanization in the CEMA member countries are on the agenda of two CEMA organs, namely, the Permanent CEMA Commission for Cooperation in the Field of Agriculture and the Permanent CEMA Commission for Cooperation in the Field of Engineering, as well as of their task forces, such as the Permanent Task force for Agricultural Mechanization acting within the Commission for Agriculture, or Sector 5--Tractors and Agricultural Machinery--acting within the Commission on Engineering.

The organs of the Agricultural Commission are dealing with the problems of agricultural technology and their solution. As long ago as the 1960's, organs for standard agricultural technologies were preparing the International System of Machinery (MSS) for Comprehensive Agricultural Mechanization in the CEMA Member Countries, which was further expanded and specified in the following period. For the 1971-1980 period, this system consisted of 29 sections (technology or machinery systems) listing requirements for 724 basic types of machinery. Some of them have been further adapted for various soil, weather and economic conditions, so that the entire system contained 1,746 units of machinery and equipment essential for comprehensive agricultural production (Polish People's Republic). Therefore, the CEMA member states--their agricultural sectors--are determining their national machinery systems. For the 1981-1985 period, experts of the CSSR Federal Ministry of Agriculture and Food established a national machinery system comprising 30 sections (technologies) and containing 961 types of machinery and equipment for comprehensive mechanization of Czechoslovak agriculture. Annual needs for individual types of machinery and equipment for Czechoslovak agriculture range here from several units to several thousand units. For example, 28 types of machinery and equipment are needed for the cultivation and harvesting of potatoes, of which 16,412 units are scheduled for delivery in the Seventh 5-Year Plan.

These limited data already show that with such an extensive selection and volume of machinery essential for Czechoslovak agriculture it is necessary

of vital importance to join the international division of labor, begin with research and development of the machinery and ending with the utilized production for the needs of several CEMA member countries.

For that reason, in 1965 Sector 5 of the Engineering Commission began dealing with problems of specialization in the manufacture of agricultural technology. The first agreement on specialization in that area concluded for the 1971-1975 period on 10 June 1972 contained 72 items of machinery. A second agreement concluded in 1976 already contained 237 items of machinery, i.e., 262 types of machinery, of which 85 machines were specially adapted for the CSSR.

The development of tractors and agricultural machinery followed its own way in individual CEMA member countries. Therefore, agreements on specialization have listed, in the past as well as now, mechanization devices which may have been designated for the same agricultural operation but which have different technical and economic parameters; such machinery is not at all standardized and thus, every unit of such machinery requires an enormous amount of spare parts which cannot be used in any other similar machines; for that reason, mass production of modules and components suitable for more than one type of machinery could not even be considered, much less organized. This is not only a problem on the international scale but also a problem for the manufacturers of agricultural technology within a given state. These issues would require a separate article, but to put it briefly, this situation stems from poor coordination of the technical development within each of the CEMA member states as well as among the CEMA member states, from certain rivalry among the designers in various factories (this applies also in international relations), from insufficient economic pressures, from underestimating the other partner's capabilities and frequently also from indifference and inferior standards of normalization, supply of information, and so on.

Here we come to the second main task which is now being solved in Sector 5 of the Commission on Engineering. In the mid-1970's, experts and representatives of the countries in Sector 5 concluded that so long as tractors and agricultural machinery would be developed on the basis of joint technical assignments which would include requirements of the agriculture in several CEMA member countries or even of all member countries, advanced machinery would be designed according to world standards and thus, it would become capable of computing; it would be manufactured in several modifications, highly standardized and suitable for various soil and weather conditions of the interested countries. This will offer preconditions for mass production and facilitate the manufacture of standard modules and components as well as efficient specialization and collaboration in the production of tractors and agricultural machinery. For that reason, agreements on scientific technical cooperation of the CEMA member countries in designing tractors of 6 through 20 kN traction categories and systems of machinery for the cultivation, harvesting and postharvest processing of grain, fodder crops, potatoes, sugar beets and corn were concluded in 1974-1976, and for the 1981-1985 period also contracts for designs of machinery and equipment for mechanized operation in livestock production.

Agreements on scientific technical cooperation for the 1976-1980 period contained 27 cooperation projects in tractors, 7 cooperation projects in

machinery for the cultivation, harvesting and post-harvesting processing of grain crops, 8 cooperation projects in fodder crops, 14 cooperation projects in cultivation of potatoes, 6 cooperation projects in cultivation of sugar beets, and 4 cooperation projects in corn.

In individual cooperation projects, the entire system was managed by the Council of Commissioners representing the parties to the contract and by meetings of experts of the engaged countries. A principal coordinator assigned for each topic (agreement) coordinated the work of individual project coordinators. These coordinators supervised the work of the problem-solvers in individual projects of cooperation. When organizing this system of work, representatives of individual countries followed the idea that there always will be one project coordinator and several problemsolvers who would also become potential manufacturers specializing in highly standardized machinery (if several modifications are developed for various conditions of operation and economy) and that they will consistently share in division of labor and cooperation in production with the objective that they will supply these products for agricultural needs not only in their own but also in other interested countries. The machine or machines were always developed on the basis of an agreed-upon standardized technical assignment which respected the interests of all involved countries.

As a rule, good and progressive ideas suffer from certain "childhood diseases" and therefore, thus far this effort has failed to meet with success, in spite of the best intentions to achieve some specialization not only in production but also in research and development [R&D] so as to curtail the diffusion of R&D capacities to an enormous amount of problems. Again, the underlying reason is the unhealthy ambition of certain R&D experts who often still cannot think economically, with their rivalry and their underrating of the work of others, etc. Of course, there are additional factors, such as different standards of manufactured technology, wages and salaries, prices of materials, overhead and so forth, so that the price range of the same product manufactured according to the same documentation is from 100 to 500 percent. If we could manufacture a certain type of machinery under ideal conditions in our country for 100 percent, but if we had to pay 300 to 500 percent of the original price for its import, that machinery would thus cease to interest our agriculturalists, because the costs of the resultant agricultural production would be slightly raised, and then there might be some justification for the technical development to design and manufacture all such equipment in our country. Nevertheless, neither the R&D base nor the production base of any of the CEMA countries can undertake such an amount of work. Therefore, the only solution is real division of labor, from the beginning to the end, with gradual rapprochement of the factors affecting the final price of the product. This program was started in Sector 5 of the Commission on Engineering, but it must be consistently followed and it must eliminate efforts frequently reflected in the fact that there are as many diverse products and as many specializing countries as there are problemsolvers. At the same time many of those countries produce the machine only to provide for (cover) the needs of their own agriculture.

Table 1 presents numerical data on specialized machinery according to agricultural technologies and numerical data on exported items.

1. Zemědělské techniky		2	3	4	5	6	7	8	9	10	11
12.	Traktory	63	10	10	60	183	158	104	160	00	00
14	Obilniny	81	94	94	83	132	134	50	90	00	00
14	Kukurice	50	21	00	30	73	51	10	70	00	00
15	Pšeniny	121	41	94	234	150	2410	133	190	00	00
16	Bramborv	30	00	81	61	40	74	41	30	10	10
17	Cukrovka	10	00	11	40	30	63	42	80	00	00
18	Přádné rostliny	00	00	00	01	00	96	00	00	00	00
19	Polní zelinářství	24	1514	75	70	110	152	10	40	00	00
20	Skleníkové zelinářství	00	10	00	10	61	31	20	30	00	00
21	Tabak	55	10	00	00	00	00	00	20	00	00
22	Sadařství	43	53	00	21	90	94	00	60	10	10
23	Vinohradnictví	32	65	00	00	60	33	10	20	00	00
24	Chmel	00	00	00	00	00	20	75	11	00	00
25	Chov skotu	11	21	54	61	40	73	61	20	00	00
26	Chov prasat	00	00	00	00	00	11	00	00	00	00
27	Chov ovci	10	00	00	00	10	11	00	00	00	00
28	Chov drůbeže	30	72	20	11	60	81	80	40	00	00
29	Chov králíků	00	10	00	10	00	10	00	00	00	00
30	Meliorace	00	00	00	10	00	42	11	00	00	00
31	Zemědělská doprava	31	40	42	30	42	73	42	30	10	75
32	Zpracování půdy	60	10	30	102	122	1210	82	120	20	1710
33	Hnojení	20	40	63	72	60	74	60	40	20	83
34	Ochrana rostlin	50	98	00	61	80	60	00	40	10	105
35	Komplexní zařízení a úzly	10	00	42	40	20	40	31	10	00	53
36	Celkem	71	65	59	90	135	169	84	110	8	265
		21	35	29	17	13	71	22	1	0	164

- Key: 1. Agricultural Technology 2. Bulgarian People's Republic
 3. Hungarian People's Republic 4. GDR 5. Polish People's Republic
 6. Socialist Republic of Rominia 7. USSR 8. CSSR 9. Socialist
 Federal Republic of Yugoslavia 10. Cuba 11. Specialized
 machinery/export 12. Tractors 13. Grain crops 14. Corn
 15. Fodder crops

[Key continued on following page]

16. Potatoes
17. Sugar beets
18. Textile crops
19. Vegetables cultivated in fields
20. Vegetables cultivated in hothouses
21. Tobacco
22. Orchard fruit cultivation
23. Viniculture
24. Hops
25. Cattle raising
26. Hog raising
27. Sheep raising
28. Poultry farming
29. Rabbit raising
30. Amelioration
31. Agricultural transport
32. Soil treatment
33. Fertilization
34. Plant protection
35. Comprehensive equipment and modules
36. Total

A similar situation is evident in other systems of machinery. Data shows that developed machinery is included in multilateral agreements on specialization and therefore, this task has been fulfilled, with some minor exceptions when either the development could not be completed on schedule, or when during the development other countries had lost interest in such devices for mechanization due to changes in agricultural technology or for other reasons.

Still, the number of specializing countries and actual exporters is astonishing. If we consider that specialization in production is advantageous if 1 to 3 countries specialize in the same product, we may see that 164 such types of machinery are listed for the 1981-1985 period, which means that from 4 to 9 countries specialize in the manufacture of the remaining 96 types of machinery, 6 countries each specialize in the manufacture of 20 types of machinery, 7 countries each specialize in 8 types, and 8, or as the case may be, 9 countries specialize in the manufacture of 1 type. However, this is no longer specialization of production but rather legalization of the status quo in production. The situation is even worse because in these instances units of modules and components of the machinery are not standardized and thus, all manufacturers make their machine for the same purpose but with different technical economic parameters. If the international testing system were functioning properly and if objective evaluation tests were conducted with international participation on the basis of approved standard testing methodology, it would be clearly demonstrated which machine is the best and better results comparable with world analogs would be achieved in the system of some modules for a machine. Naturally, the engineers would have to eschew blind "patriotism" and bear in mind societywide interests or the interests of the whole community.

The overall situation in specialization and collaboration in the production of tractors and agricultural machinery for the 1981-1985 period is presented

in Table 2, where the numerator always expresses the number of specialized items to the credit of a given CEMA member country and the last column in the table expresses the number of specialized items within the given agricultural technology, while the denominator expresses the number of exported specialized items of machinery.

The table documents export of only 1 of 110 items of machinery specially adapted for the Socialist Federal Republic of Yugoslavia, only 13 of 135 items for the Rumanian Socialist Republic, etc. This situation may be explained by the following causes:

1. According to the agreement on specialization, the nonspecializing country has no right, even if it intended to provide for its own needs, to manufacture any machine in which another country specializes. This means that if we would want to manufacture, for instance, a tractor of the 50 kN traction category, of which we need a very limited number of units annually, we must either specialize in its manufacture or the specializing country may penalize us.
2. Some products which are absolutely essential for our agriculture frequently require considerable space (such as cages for poultry farms or automatic sheaf collectors), however, importing them assembled would mean in fact to transport air on the railroad, and therefore, we prefer to manufacture them in our country.
3. A serious reason stems from the price range since we must pay much more for the same imported machine than one that would be manufactured in our country, and thus, we are forced to specialize, although in terms of mass production this undertaking does not interest large enterprises, although this kind of production may be interesting for various state tractor stations or enterprises of local economy.
4. Occasionally we must manufacture machinery because of the balance of payments which would be further aggravated by imports from a specializing country. A solution must be sought in the balance of payments from state-wide and not sectorial viewpoints.
5. Certain machinery or equipment is manufactured because the specializing country is unable to supply that particular machinery with required technical economic parameters, although it manufactures analogical machinery, but with inferior parameters.
6. The capacities of the specializing country cannot satisfy every demand from nonspecializing countries and hence, duplicate manufacture.
7. A major role is played by the lack of discipline of the specializing countries and thus, the nonspecializing country is often left to the tender mercies of the specializing country as concerns the volumes, schedules, quality and price of the products.

There may be some other reasons, however, all of them reflect the facts presented in Table 1 and the fact that we are specializing in 265 machinery items of which no more than 164 are subject to mutual exchange of goods. The above indicates that there are many hidden resources, problems and difficulties of objective as well as subjective nature in specialization of the production (because one can hardly speak of collaboration in the production thus far).

In 1983, new work will begin on the program for specialization for the 1986-1990 period, and production programs of enterprises must be outlined and reviewed even now from the viewpoint of their efficient introduction in international socialist integration.

On 13 to 17 July 1981, experts met in Frunze, USSR, to discuss a proposal for technical assignments of machinery units for compressing hay and straw into giant 500 kg bales. At the same occasion, they dealt with problems of division of labor in the development and production of modules for its operating model and for its prototypes in 1982-1983. On the basis of initial technical documentation concerning compressors of such giant bales, the participants agreed to prepare and deliver for testing free of charge the following:

Hungarian People's Republic--signal systems, propeller shafts, and main scaler for the machine, which will be unified with other machinery manufactured in the Hungarian People's Republic;

GDR -- the travel section of the pickup baler, including the pneumatic brake system and tying mechanism which is unified with other machinery manufactured in the GDR;

USSR -- all other modules and components which are unified as much as possible with other agricultural machinery.

It is presumed that even the mass production which will follow will make it necessary to assemble the final product in two or three countries from modules and components made in the above-mentioned countries. That is the first step in this area, if we discount the long tradition of collaboration in production between the CSSR and the Polish People's Republic. Obviously, the 33rd and 34th sessions of the CEMA will issue their decisions on the basis of such an approach and organization of joint agencies for the construction of essential agricultural machinery. That is the only possible way facing the competition of products made by foremost capitalist companies and of resolving the problems of the comprehensive mechanization program of socialist agriculture in the CEMA member countries.

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CZECHOSLOVAKIA

RESULTS OF 1982 NATIONAL PLAN FULFILLMENT REPORTED

Prague RUDE PRAVO in Czech 29 Jan 83 pp 1,3

[Report by the Federal Office of Statistics: "Report on the Development of the National Economy and Fulfillment of the State Plan in the CSSR in 1982"]

[Text] The implementation of the social-economic program approved by the 16th CPCZ Congress continued, under much more demanding conditions, in 1982. The planned slowdown of the economic growth created prerequisites for the adaptation of the economy to the new, more complex situation, for maintaining the balance in its main areas. In comparison with 1981, the national income increased Kcs 18.5 billion and the social product Kcs 67.5 billion (at current prices). The principal objectives of the state plan were achieved--to maintain the citizens' living standard and social securities, and to secure a balance in the external economic relations. This was facilitated by the further expansion of economic and scientific-technical cooperation with the CEMA countries and above all with the USSR.

The effort to lead the national economy to the road of intensive development was reflected in the continuation of positive tendencies of the first year of the Seventh Five-Year Plan in efficiency, particularly by the reduction of material and total production costs, increased returns and profits in the economic organizations. Consumption of fuels, energy and metals was reduced by the implementation of state goal-oriented programs. The conservation was favorably affected by the fulfillment of tasks resulting from the CSSR government resolution on the economy program during the Seventh Five-Year Plan. The development of efficiency was positively affected by the application of principles of improved planned management systems of the national economy which, however, were not consistently observed everywhere.

The results were achieved thanks to the workers' activity and initiative, organizational effort of party and government organs, and support of trade union, youth and other mass organizations.

The economy successfully coped with the smaller supply of crude oil and other imported raw and industrial materials, and the consequences of the poor harvest in 1981 were overcome. Despite these favorable tendencies, development in 1982 also was marked by shortcomings which slowed down the economic growth. There was still little participation of science and technology in the

utilization of economic potential, in more effective use of human labor, energy and raw materials, in more efficient utilization of capital assets. A number of enterprises failed to meet the plan targets, and the uneven plan fulfillment during the year continued. Reserves remain in a more rapid adaptation of the product mix and products' technical and economic standards to the requirements of domestic and foreign markets, and to the management standards.

Research and Development

In research and development, which is currently one of the main factors in the successful achievement of the outlined economic program, we have succeeded in solving and introducing into production some significant research and development output, improving the innovation process, and increasing the technical standards and product quality. Overall, however, the practical progress of research and development was insufficient and did not correspond to the needs and give potential.

In comparison to the previous year, the fulfillment was higher, but the average time for the solution of problems was still too long. The research and development tasks of the state plan of technical developments were fulfilled at 97.3 percent. Enterprise, VHI, and branch research departments contributed their share.

One of the successful solutions in research and development were the integrated structures of active semiconductor devices which will make possible new applications in active components of electronic systems and savings in electric energy by users, unipolar circuits for microcomputer and information systems, enabling an increase in the technical standards of final products, particularly engineering systems for production of ethylene from crude oil fraction up to 360 degrees Celsius, ensuring a transition from shortage gasoline fraction to new materials and making possible an increase in the export and production of bleached sulphate pulp by using the delignification effects of oxygen.

About 93.3 percent of the output of the state technical development plant was implemented in practice. The fulfillment was higher than last year. Thus, for example, production of industrial robots on the basis of electric drives was initiated as well as the production of an adjusted landing radar improved spindleless spinning machines.

Based on the results of research and development, licences, inventions and suggestions for improvements, implemented in the industrial enterprises, 5260,000 tons of standard fuel equipment were saved during the past year; savings in materials and raw materials were valued at Kcs 7.4 million, and relative labor savings were equivalent to 19.5 thousand units.

Within the framework of the state goal-oriented program of rationalization of fuels and energy, an estimated 2.4 million tons of standard fuel equivalent were saved in industry, agriculture, construction, transportation and communications and by organizations managed by the kraj national committee.

The share of new products in the total value of industrial products increased to 16 percent, and the share of products of high technical economic standard in the total value of industrial products amounted to 11.1 percent. Despite the general improvement, however, the technical standard and quality of some products still did not meet the specified parameters in individual economic organizations.

The increased workers' initiative was reflected in larger numbers of inventions and improvement proposals, and also in the increase of their use value. The number of patent applications amounted to 8,393 which was 4.4 percent more than in the previous year. The number of improvement proposal applications increased to 334,000 which was 4 percent more than in 1981. Considerable reserves, however, still exist in the speed and flexibility of practical application of approved inventions and improvement proposals.

The scope of scientific-technical cooperation with the CEMA countries and particularly with the USSR further increased. Cooperation with the USSR focused on the expansion of production specialization particularly in the engineering industry, on the solution of problems of the securing and rational utilization of fuel and energy resources, as well as on other areas which are of key importance for the rapid increase in the technical standard of the national economy.

Capital Investment

The restriction of the investment scope and concentration of capital investment gradually created prerequisites for overcoming some long-term shortcomings in this area. A fundamental turnaround, however, was not yet achieved particularly in regard to observing the deadline set for individual construction stages and for completion of some important capacities. The total volume of investment work and deliveries excluding project "Z" [community self-improvement program] and private construction was 1.1 percent smaller than in 1981 (the plan had anticipated a 2.5 percent reduction) and amounted to Kes 138.7 billion including construction work in the value of Kes 77.3 billion and deliveries of machinery and equipment in the value of Kes 61.4 billion. The share of investments in national income was reduced.

Investments were gradually oriented to the priority implementation of key structural changes particularly in the fuel and power sector, and to the implementation of state goal-oriented programs. Investments in the fuel and power sectors accounted for 37.7 percent of total investments in industry.

In particular, the following capacities were gradually completed and put into operation in the course of the year: three 210 MW units [bloky] in the steam power plant Prunerov; turbogenerators Nos 5 and 6 in the pumped storage hydroelectric power plant Cierny Vah; heat plants [teplarna] Brno North and Kosice II; additional turboaggregates [soustroji] in the compressor stations of the transit natural gas pipeline at Velke Kapusany and Ivanka; capacities were expanded in the Maximum Gorki and Vrsany mines in SHD [North Bohemian Brown coal Mines] and Darkov Mine in OKC [Ostrava Karvina Mines]; coking oven [koksareoska baterie] No 14 in TZ Trinec [Trinec Iron

Works); continuous casting of flat steel ingots in VSZ (East Slovakia Iron Works) Kosice; continuous casting line at Podbrezova; gray cast iron parts in ZPS (Precision Machine Plants) Gottwaldov; hall for long-distance conveyor transportation in Transporta Chrudim; integrated circuits at Iesl, Piestany; production of chipboards at Jihlava; meat combines at Chomutov and Prague-Gekovice; Kunovice freezing plant; a 170,000 ton increase in the capacity of grain silose (8 grain silos); 37.9 km of superhighway [dálnice] and additional sections of the North-South freeway [magistrála] in Prague; reconstruction of the Poprad-Tatry railway station; relocation of the Usti and Labem-Teplice railroad track; telecommunication building at Danska Bystřica; social welfare institute at Janov in the Most okres; hotel at Most. Intensive work continued on the construction of subway tunnels in the total length of 8.6 kilometers.

More progress was made on construction projects specified as mandatory tasks than on other projects; completion of capacities improved in comparison with the previous year. Nevertheless, due to the still insufficient concentration of construction and assembly capacities on these projects, some important capacities were not put into operation on schedule.

The excessive scope of unfinished projects as well as shortcomings in the territorial and design preparation of some new projects are the main reason for not achieving planned progress in construction on several projects and this in turn affected achieving planned parameter on the completed capacities. The shortcomings in capital investment are reflected also in the increases in the budget costs of projects under construction.

The number of construction starts was almost 15 percent smaller in 1982 than in 1981. The regulation of construction starts contributed to the reduction of the excessive scope of unfinished projects and to the shortening of the average construction period. In comparison with the previous year, the remainders of budget costs were reduced 8.1 percent.

Industry

The intentions of the state plan to increase industrial production even with limited inputs of fuels energy, motor fuels and other raw materials by the mobilization of internal reserves were essentially achieved.

In comparison with 1981, industrial production volume in the centrally managed industry increased 1 percent. The industry growth rate in 1982 was 0.6 points higher than anticipated by the state plan. Gross production plan targets were surpassed Kcs 3.7 billion which represents 1.5 day's production. Some enterprises, however, failed to meet plan targets.

The planned volume of adjusted value-added was surpassed Kcs 4 billion or 1.6 percent.

The production increases in individual industrial sectors varied in accordance with the continuing implementation of planned structural changes. More rapid production increases were achieved in sectors with wider application of scientific-technological achievements. On the other hand, production

enterprises were higher in sectors consuming relatively more energy and more dependent on imported raw materials. The implementation of state goal-oriented programs effectively contributed to structural changes. Production in the massive sector implementing goal-oriented programs increased much more rapidly.

In comparison with 1981, the total value of sales by the centrally managed industry increased (at comparable wholesale prices) by Kcs 3 billion or 0.3 percent. The state plan targets for deliveries for export, domestic trade and capital investment were surpassed Kcs 9.2 billion and their plan was fulfilled 103.2 percent. The volume of deliveries for export to socialist countries increased 8.2 percent, and to nonsocialist countries 3.2 percent. The deliveries of machinery and equipment for investment projects declined 5.2 percent, but the state plan had anticipated a bigger decrease. The planned volume of deliveries for domestic trade was surpassed 0.4 percent.

The fluency of supplier-customer relations was adversely affected by the uneven fulfillment of planned tasks by some industrial enterprises and still-slow adaptation of the production to the requirements of the economy.

Economic measures and other incentives linked to the development of qualitative indicators were favorably reflected in the comprehensive results of industrial enterprises' financial management. In comparison with the previous year production costs were reduced more than anticipated by the state plan. The relatively biggest reduction--1.4 percent--was attained in material costs. The return on expenditures and production assets were bigger than specified by the annual stage plan.

According to the estimates, the engineering industry achieved a 3 percent relative reduction in the consumption of ferrous metals and 3.5 relative reduction in the consumption of nonferrous metals. However, the plan had anticipated a bigger, 4.5-5.0 percent annual conservation of metals.

The inventories in enterprises in industrial sectors increased more rapidly than outputs. In particular, inventories of finished products and unfinished production increased. The inventory turnover period lengthened, while the plan had anticipated its shortening.

Later productivity based on adjusted value-added increased 3.4 percentage over the 1981 level and the plan was fulfilled 101.1 percent. Labor productivity based on gross production increased 0.5 percent.

In comparison with 1981, employment in centrally managed industry increase 13,000 or 0.5 percent and amounted to 2,662,000.

Like in 1981 the utilization of the working time amounted to 91.5 percent. The ratio of workers' overtime work was reduced from 5.8 percent to 5.3 percent. The coefficient of shifts worked by the industrial worker increased from 1.325 to 1.329.

The following results were achieved in individual industrial sectors in 1982: In the fuel industry, total coal and lignite output amounted to 124,09,000 tons, and the state output plan was surpassed by 559,000 tons or 0.5 percent.

The surpassing of plan targets was made possible by the self-sacrificing effort and initiative of miners within broad socialist competition. It was facilitated in the surface mines also by favorable weather toward the end of 1982. The miners of the Ostrava-Karvina district surpassed the plan by 110,000 tons and miners of the Kladno district by 53,000 tons. The annual plan targets in brown coal output were surpassed by the largest margin in the Sokolovo district--1,037,000 tons. The workers in the Prievidza coal and lignite mines surpassed the plan targets by 54,000 tons. The output plan was not completely fulfilled only by the North Bohemian coal district, where miners, however, succeeded in reducing the shortfall of 1,446,000 tons in output at the end of September to 699,000 tons by the end of the year.

The removal of the overburden in surface mines considerably accelerated. Its total volume was 14,493,000 cubic meters bigger than in 1981. The annual plan targets were met 98.7 percent. The pace of removal accelerated toward the end of the year and this increased the volume of exploitable coal deposits.

The implementation of a number of measures in production and consumption contributed to the smooth flow of fuel and electricity supply to the national economy. Larger inventories of solid fuels at FMPE thermal plants [Federal Ministry of Fuels and Power] at the end of the year created conditions for smooth electricity supply during the first months of this year. The supplies of solid fuels for the population was slightly bigger than in 1981.

Electricity production amounted to 74,703 million kWh and was 1.8 percent higher than in 1981. The production plan was fulfilled 101.3 percent. Production in the nuclear power plant increased 13.8 percent and its share in the total electricity production increased to 7.8 percent. Standard fuel consumption in thermal power plants was reduced from 386 gmp [grams of standard fuel] /kWh in 1981 to 381 gmp/kWh in 1982.

Electricity consumption was 1 percent higher than in the previous year. Consumption by small consumers increased more (2.6 percent) than by large consumers (0.3 percent). Energy consumption in industrial production slightly declined.

In metallurgical industry, total production decreased 0.4 percent although needs for metals in the national economy were generally met. The plan has anticipated its 2.8 percent decrease. In the metallurgy of nonferrous metals, the decline amounted to 2.6 percent, in the output and dressing of ores 0.4 percent, while ferrous metallurgy remained on the 1981 level. In securing planned tasks, emphasis was particularly placed on the better quality and improvement of metallurgical production assortment structure.

Production of rolled material made from high-grade steels increased 4 percent, of heavy plates (3 mm and thicker) 10.9 percent, of rolled drawn sheets 10.9 percent, of technically pure aluminum 3.5 percent. Total production of pig iron increased 2.3 percent and its planned volume was surpassed.

In the engineering industry, total production increased 2.9 percent or 0.6 percent more than specified by the annual state plan.

Within the framework of structural changes, the engineering production is being re-oriented on production with smaller consumption of materials (particularly metals), and on sectors producing primarily for export and important for the expansion of international socialist economic integration.

The largest production increase was achieved in the electrical engineering industry which registered a 4.8 percent production increase. Production increased most in modern sectors of electronics which create conditions for accelerating the improvement of products' technical standards in the entire national economy. Production of parts for the electrical engineering and electronics industry increased 15.4 percent, production of communication equipment of investment nature 5.8 percent. A rapid increase was registered in the manufacture of electrical consumer goods, particularly of color televisions sets and radio receivers.

In general engineering industry production increased 3.1 percent. Production of buses increased 28.4 percent, of agricultural machines 6.4 percent, of tractors 4.4 percent, of trucks 3 percent.

Production in heavy engineering increased 1.5 percent. The biggest increase was registered in manufacture of electrical locomotives for railroads--18.2 percent, while manufacture of equipment for the chemical industry increased 10 percent, of machinery for the food industry 7.2 percent and of passenger railroad cars 6 percent.

Although production volume of spare parts increased, their product mix still does not fully meet the needs.

Due to the smaller quantity of processed crude oil, production in the chemical industry declined 0.3 percent, while the annual state plan had anticipated a 1 percent decrease. Economy measures in the area of consumption of crude oil products were reflected particularly in the reduced production of gasoline for cars by 10.4 percent, of diesel fuel by 6.7 percent and of heating oils by 16.8 percent. Production increased in sectors of qualified [? kvalifikovane chemie] chemistry and in sectors with the more effective processing of raw materials: production of pure chemicals by 5.5 percent, of organic dyes and pigments by 5.2 percent. Likewise, there was an increase in production of plastics and synthetic fibers.

In the woodworking industry production increased 3.7 percent including a 4 percent increase in the pulp and paper industry and a 3.5 percent increase in the woodworking industry. The annual plan had anticipated a general

5.7 percent production increase. The nonfulfillment of some plans was affected particularly by failing to comply with plan parameters in the wood mill producing plants and by delays in reconstruction of some timber and furniture enterprises.

In light industry a general production increase of 1.6 percent was achieved. Production in the glass, porcelain and ceramics industry increased 2.8 percent, in the printing industry 2.7 percent, in the garment industry 2 percent, in the textile industry 1.4 percent and in the leather industry 1 percent. The total of deliveries by light industry to domestic trade at wholesale prices was 0.5 percent bigger than in 1981. In some branches, particularly in the textile and garment industries the assortment of products was enlarged and the products' quality increased.

In the building materials industry production declined 1.5 percent in 1982 in accordance with the plan. The production decline was reflected particularly in the energy-intensive productions such as of cement by 3 percent, of lime by 4.5 percent and of construction elements [stavebni dilce] by 10 percent. On the other hand, there was a 5.1 percent increase in the manufacture of unburnt wall materials, a 9.8 increase in the manufacture of burnt roof covering and a 2.3 increase in the manufacture of ceramic wall tiles.

Production of Important Industrial Products

	Unit of Measure	1982 Reality	1982/1981 in %
Anthracite (output for sale)	1,000 tons	27,463	99.8
Brown coal including lignite (output for sale)	1,000 tons	97,096	101.9
Electric energy	million kWh	74,705	101.6
Pig iron	1,000 tons	9,529	96.2
Ingot steel	1,000 tons	14,992	98.2
Rolled material	1,000 tons	10,655	98.7
Nitrogen fertilizers	1,000 tons/N	567.0	105.2
Potash fertilizers	1,000 tons K ₂ O	210.8	102.4
Plastics	1,000 tons	956.4	104.8
Synthetic fibers	1,000 tons	179.9	106.7
Passenger automobiles	Each	173,517	96.1
Trucks	Each	47,270	103.0
Tractors	Each	33,523	104.4
Antifriction bearings	1,000	71,667	102.2
Machine tools for metal ¹⁾	Each	16,197	100.8
Integrated monolithic circuits	Million Kcs	1,332	123.2
Digital computers	Each	322	97.9
Washing machines for households	1,000	370	98.7
Refrigerators and freezers for households	1,000	383	101.0

¹⁾excluding local industry and Union of Producer Cooperatives

major television sets	1,000	71	117.2
radio receivers	1,000	274	114.7
tape recorders and dictaphones	1,000	170	105.0
papers and cardboards, total	1,000 tons	928	102.8
sheet drawn colorless glass	Million square meters	35.5	103.4
furniture made of wood and other materials ¹⁾	Million Kcs	7,029	105.9
bedding made from fabrics	1,000	11,972	103.2
garments made from fabrics and unwoven textiles	Million	33.8	102.1
stocking products	Million pairs	104.7	102.4
Footwear, total	Million pairs	115	100.6

Building Industry

Due to the measures adopted for the implementation of the "Attitude Toward the Situation in the Building Industry and its Urgent Tasks in the Implementation of the Seventh Five-Year Plan," the fulfillment of tasks by construction enterprises gradually improved in the second half of the year. In the volume indicators they succeeded in making up for the shortfall in the first months of the year. This was partly facilitated by favorable weather toward the end of the year. The construction enterprises, however, did not still succeed in concentrating, at the desirable rate, construction capacities for a more rapid completion of projects and in more consistent coordination of the construction work structure with the needs of capital investment.

Construction enterprises performed with internal labor resources construction work of the value of Kcs 82.5 billion and surpassed the state plan 1 percent. In comparison with the previous year the construction work volume was 1.7 percent smaller because of changes in the structure of capital investment and particularly because of the smaller scope of building sites' preparation [zemni prace] in connection with the emphasis on more rapid completion of construction projects and shortening of the average construction period.

Increased attention was paid to the areas of concentrated capital investment. The volume of construction work performed on the basis of supplier contracts was fulfilled 103.4 percent in the North Bohemia kraj, 103.7 percent in the capital of Prague and 106.6 percent in the capital of the SSR Bratislava.

Despite the general fulfillment of the construction work volume, however, the fulfillment of planned tasks by individual construction enterprises considerably varied. The fulfillment of planned tasks was better by enterprises supervised by the ministries of construction. The enterprises supervised by the CSR Ministry of Construction surpassed the state plan of construction work performed with internal labor resources by Kcs 945 million or 2.9 percent, enterprises supervised by the SSR Ministry of Construction did not fulfill the plan by 0.4 percent. The okres construction enterprises

¹⁾Excluding local industry and Union of Production Cooperative

fell short of the plan target 1.7 percent particularly because they fell behind in maintenance and repairs of residential buildings.

The plan of adjusted value-added was fulfilled 99.3 percent by the construction enterprises.

The unfavorable fulfillment on some construction projects is reflected in the still large number of unfinished projects.

Construction enterprises completed 84,000 apartments and fulfilled the plan 98 percent. The number of completed apartments was 9 percent higher than in the previous year.

Construction enterprises employed on the average 545,000 persons which was 7,000 less than in 1981. Despite a 2.9 percent reduction of labor productivity in comparison with the previous year which was caused by structural changes, the plan was surpassed 1.1 percent. Labor productivity based on the adjusted value added declined 1.6 percent and the plan was fulfilled 99.8 percent.

Agricultural Food Complex

The results achieved in agricultural production helped overcome the impact of the 1981 poor harvest, reduce the requirements for import of fodder from capitalist states and alleviate the discrepancy between crop and livestock production.

The total volume of gross agricultural production increased 1.1 percent over the 1981 level. While in comparison with 1981 crop production increased 8.9 percent, livestock production declined 4.2 percent in accordance with the plan. Although in comparison with 1981 the level of most of main products improved, yields per hectare and harvests, for example of grain crops, potatoes and perennial fodder sown on the arable land, fell short of plan targets. On the other hand, plan targets set for the sugar beet and corn harvest, both for grain and silage, were surpassed.

The results were adversely affected by weather unfavorable for wintering and by the reduction of areas sown with some crops. Altogether it was necessary to plow under winter grain crops on the area of 80,000 hectares. Despite the substitute spring sowing, the areas sown with grain crops remained 2.7 percent, the areas of perennial fodder 13.8 percent and the areas of root crops for fodder 43.8 percent below plan targets.

Yields per hectare and harvest of selected crops in 1983

	<u>Yield per hectare</u>		<u>Harvest</u>	
	<u>in tons</u>	<u>1982 in % of 1981</u>	<u>in 1,000 tons</u>	<u>1982 in % of 1981</u>
Grain crops, total (incl. corn for grain)	4.00	109.0	10,271	109.3

Corn: for grain	5.21	124.9	939	133.0
for fodder and silage	37.27	104.1	17,290	110.5
Potatoes	17.61	93.3	3,503	93.6
Sugar beet	38.36	119.2	8,210	117.8
Perennial fodder on the arable land	8.62	84.0	4,215	78.5

Because of the poor harvest of grains in 1981 and limited imports of fodder, it was necessary to reduce the number of pigs. By the end of the year their total number was 7,126,000 which is 176,000 less than in 1981.

On the other hand, relatively greater supplies of preserved bulk fodder made possible the increase in the number of cattle which totalled 5,131,000 at the end of the year. The total number of cows of 1,899,000 was 6,000 below the 1981 level.

The reduced sources of grain fodder adversely affected the utility of domestic animals. The weight gains by the cattle being fattened amounting to 0.64 kilograms and of pigs being fattened amounting to 0.486 kilograms were smaller than in the previous year as was also average egg production per hen which amounted to 228. Average annual milk production per cow increased 10 liters over the 1981 level and amounted to 3,102 liters.

Agriculture essentially fulfilled the tasks in regard to the delivery of agricultural products to the state reserves [statni fondy] with the exception of milk, where the increased purchase in the last months of the year almost made up for the shortfall in the purchase that occurred during the first half of 1982.

Purchase of animal products

	<u>Unit of</u>	<u>1982</u>	<u>Difference from</u> <u>1981</u>	<u>the plan</u>
Slaughter animals, total	1000 tons of			
(excluding poultry)	live weight	1,473	-139	+16
including: slaughter cattle	" "	657	+ 8	+15
slaughter pigs	" "	791	-146	+ 1
Slaughter poultry	" "	238	- 2	+ 5
Milk	Million liters	5,168	- 1	-12
Eggs	Million each	2,759	+ 54	+59

Dosages of industrial fertilizers per hectare of agricultural land amounted to 254 kilograms of pure nutrients which was approximately the same amount as in 1981. More attention was paid to the use of cattle manure.

To achieve higher intensity of crop production, 12,000 hectares were irrigated and 45,000 hectares reclaimed. Moreover, agriculture was supplied

with more equipment. It received for example 8,530 tractors, 1890 tractor-drawn plows, 1,430 sowing machines and 1,240 combines.

Due to the smaller purchases of some agricultural products in 1981, the total production volume of food industry was 0.8 percent smaller in 1982 than in the previous year, while the annual plan had anticipated a 2.2 percent decline. The reduction was most reflected in production of the meat industry, fodder industry and starch-distilling industry. On the other hand, a bigger harvest of vegetables and particularly of fruit in 1982 resulted in a 8.5 percent increase in the manufacture of products from fruit and vegetables, in a 14.4 percent increase in sugar industry production, and a 4.8 percent increase in frozen and refrigerated products.

In accordance with the plan, meat production was reduced 9.8 percent in comparison with the previous year, and production of slaughtered poultry 1.6 percent. Restrictions imposed during the year on production of cream and whipped cream made it possible, despite the nonfulfillment of milk purchase plan, to increase production of butter 9.2 percent and of cheeses 6.2 percent.

Forestry

The total lumber output amounted to 18,458,000 cubic meters which represented a 0.2 percent increase in comparison with 1981. The shipments of timber amounting to 17,300,000 cubic meters exceeded by 185,000 cubic meters shipments in previous years. The annual plan of lumber output and timber shipments was slightly surpassed. Planned lumber shipments to key wood-working and other enterprises including exports were carried out. Salvaged lumber [kalamitni drevo] accounted for 34.8 percent of total output which was 2.1 points more than the average of the last 10 years. In accordance with the more effective comprehensive processing of the wood substance exports of rough wood declined.

The demanding tasks in cultivation and particularly in reforestation and protection and care of young trees were successfully fulfilled. A total of 52,100 hectares or 7.2 percent more than in 1981 were reforested.

Water Management

The drinking water supply increased 38 million cubic meters or 3 percent in comparison with 1981. The ratio of the population supplied with water from the public water systems amounted to 73 percent by the end of the year, while citizens residing in houses linked to the public sewer system accounted for 59.3 percent of the population. All these indicators of the state plan were surpassed.

A total of 1,200 kilometers of water supply system and 500 kilometers of sewers were constructed and put into operation in 1982. The amount of waste water released into the public sewer system increased 3.8 percent in comparison with 1981.

Transportation and Communications

Public transportation met the requirements of the national economy. Transportation volume decreased approximately 2.5 percent, freight transportation gradually shifted to types of transportation which are more economical in terms of energy consumption. In accordance with the plan's intentions, the role of public transportation was strengthened and the volume of commodity transportation by industrial plants declined in comparison with 1981.

Public freight transportation carried 685.6 million tons of goods which was 1.8 percent more than in the previous year. The state plan was fulfilled 101.5 percent.

Railroad transportation carried 288.4 million tons of goods and its volume increased 0.7 percent in comparison with 1981. The total weight loaded into the railroad freight cars was 243.5 million tons of fuels, building materials, ores, engineering products and other goods. The intensification of railroad transportation registered a favorable development including the conservation of diesel fuels and electric energy. The average circulation period of railroad cars continued to grow longer. The continuity of railroad transportation was disrupted by the unevenly spread claims of shippers.

CSAD [Czechoslovak State Automobile Transportation] road transportation carried 365.8 million tons of goods which was 2.7 percent more than in 1981. The state plan was fulfilled 102.7 percent. Among the positive phenomena is the reduction of energy consumption. Standard consumption per unit of output was reduced and the total consumption of motor fuels was thereby reduced by 62.6 million liters.

River transportation carried 299,000 tons of goods more than in the previous year, which represented a 2.7 percent increase. The increase in transportation of building materials was primarily responsible for the transportation volume increase.

Public passenger transportation carried 2,598.7 million persons, the total number of passengers increased 10.1 million persons. In comparison with the previous year, the number of passengers carried by CSAD increased 2 million, and those carried by CSD [Czechoslovak State Railways] increased 8.2 million.

The Prague subway carried 259.7 million persons in 1982 or 711,400 daily which was 1.9 percent more than in the previous year.

In the communications area, additional telephones were installed and the scope of direct dialing long-distance and interstate calls increased. The number of telephones installed increased 82,000 in 1982 including 26,000 telephones for the private subscribers. As of 31 December 1982, there were 3,306,000 telephones in service including 1,173,000 for private subscribers. There were 21.52 telephones per 100 inhabitants.

The directly dialed long-distance calls accounted for 82.0 percent of all long-distance calls, and the directly dialed interstate calls accounted for 42.9 percent of all interstate calls.

In the area of radio communications, a new radio transmitter "Central Bohemia" for ultra short waves was put into operation along with 8 converters to the first and 24 converters to the second television program.

At the present time, the second television program covers 67.3 percent of the CSSF territory. Color television programs accounted for 81.1 percent of the entire broadcasting time of the Czechoslovak Television.

Foreign Trade

Mutual commodity exchange turnover with socialist countries in 1982 was higher than anticipated by the state plan primarily because export targets were surpassed.

Due to the continuing crisis in sales, prices declines and more strictly enforced discriminatory measures on the part of capitalist states, all exports tasks were not fulfilled in trade with nonsocialist states. The excess of exports over imports combined with economic measures in the allocation of foreign exchange resulted in a larger surplus than anticipated in the trade balance.

Trend in foreign trade in 1982
based on current prices FOB state border of delivering state

<u>1982 in % of 1981</u>		<u>1982 in % of 1981</u>	
Exports, total	109.0	Imports, total	109.1
including:		including:	
to socialist countries	113.2	from socialist countries	115.0
to nonsocialist states	96.8	from nonsocialist staes	98.5

The socialist countries accounted for 75 percent and the USSR for more than half of this percentage in the total turnover of Czechoslovak foreign trade. The intensification of economic cooperation with the socialist countries on the basis of the "Comprehensive Program of Socialist Economic Integration" was of key importance for the Czechoslovak economy also in 1982. The coordination of national economic plans with the CEMA countries and the long-term trade agreements provided for further expansion of cooperation, increased mutual commodity exchange with these countries, satisfaction of most of our raw materials and energy needs, and for the import of new equipment primarily from the Soviet Union.

Within the "Comprehensive Program," the CSSR continued to participate in the construction of the Chmelnice nuclear power plant and Mozyr factory for production of yeast used in fodder. It cooperated also in a number of other projects included in this program. In the process of production specialization

and cooperation, the CSSR was implementing 377 agreements signed with the ECA member states for 1982, 13 of which were included in the "Comprehensive Program."

Living Standard

The already-attained living standard was successfully maintained in 1982. The increase in social consumption by the population further consolidated its social securities.

Selected indicators of the living standard

	1982	1982 in % of 1981
Personal monetary incomes in billion Kcs	380.8	104.0
Average monthly wage of workers in the socialist sector of the national economy excluding unified agricultural cooperatives in Kcs	2,735	102.1
Retail trade turnover in billion Kcs at current prices	268.6	102.9
Completed apartments in 1,000	100.7	105.8
Receipts from the population for paid services in million Kcs	9,019.1	102.0
Social consumption by the population per capita in Kcs	9,928	106.7
Number of physicians per 10,000 inhabitants	34	102.0
Passengers carried by public transportation in million passengers	2,599.1	100.4

Employment in the national economy further increased. The average number of employed workers amounted to approximately 7,440,000. Employment increased 11,000 in the production sphere and 14,000 in the nonproduction sphere. The most rapid increase in employment was registered in the school system, health care and domestic trade.

In comparison with 1981, overall personal monetary incomes increased Kcs 14.7 billion. Earned incomes increased 2.8 percent. The average monthly wage of workers in the socialist sector of the national economy (excluding the Unified Agricultural Cooperatives) increased Kcs 57 over the 1981 level and amounted to Kcs 2,735. The average wage of workers in industry increased Kcs 83 in 1982 to Kcs 2,855 and in the construction industry Kcs 73 to Kcs 2,995. Increases in personal incomes resulted partly from the wage and social measures including improvement of social welfare, living and working conditions of workers in mines. The rate of personal savings increased and deposits on personal savings accounts amounted to Kcs 178.8 billion at the end of the year.

The retail trade turnover (at current prices) in all trade systems was 2.9 percent higher than in 1981. The sale of food increased 6 percent and of industrial consumer goods 0.1 percent.

The amount and structure of the retail trade turnover were affected by necessary revisions of retail prices of selected products. These price revisions contributed to the smoother satisfaction of the demand for meat, meat products, poultry, fish.

Food supply to the population was generally satisfactory, although it was necessary to cope with the consequences of the poor harvest in 1981. Some problems in the smooth satisfaction of the demand for certain milk products, sugar and products with a higher sugar content were gradually resolved in the course of the year. The increased demand for eggs, flour, flour products and butter were fully satisfied.

The demand for industrial consumer goods was better satisfied than in the previous period. There was a bigger supply in regard to many assortments and particularly in regard to engineering consumer goods. Supply of some articles whose shortage had been felt for a long time gradually improved during the year. Nevertheless, shortcomings in some assortments persisted.

In comparison with 1981, total volume of work and services for the population as well as for the organizations which are performed by the local enterprises and producer cooperatives, increased 2 percent in 1982 as did receipts from the population for paid services. Implementation of resolutions passed by the Eighth Plenary Session of the CPCA Central Committee began.

Social consumption by the population increased 7 percent in comparison with 1981 and amounted to Kcs 9,928 per capita. This increase was affected by increases in the social security benefits amounting to Kcs 4.8 billion and by increases in subsidies to catering in school cafeterias and hospitals amounting to Kcs 1 billion effected in connection with revisions of retail trade prices.

Total social security benefits (retirement and health care benefits) amounted to Kcs 75 billion including retirement benefits amounting to Kcs 47.2 billion. In comparison with 1981, health care benefits increased 9 percent and retirement benefits 7.8 percent. This development was affected particularly by increases in retirement benefits, family allowances and maternity benefits which became effective on 1 February 1982. The number of benefit recipients increased to 3,878,000 (an increase of 52,000 since 1981), 2,099,000 of whom were recipients of retirement benefits. Family allowances increased 13.4 percent and amounted to Kcs 15.2 billion. The total amount of monetary assistance to families with children increased 11.8 percent and amounted to Kcs 21.8 billion.

In kindergartens there will be 715,000 children during the 1982/1983 school year. This represents 87.8 percent of all children in the respective age

249,000 students who completed their basic school education in 1982, 59.5 percent were placed in vocational schools [ucelni obory] and 38 percent in selective schools. The total number of apprentices was 310,900 including 52,500 in vocational schools with a maturita graduation examination. There are 390,000 students engaged in daytime studies at high schools and 1,000 college students.

The accommodation capacity of health establishments amounted to 192,000 beds, 120,900 of which were in hospitals. There were 295 persons per physician as compared with 301 in 1981. There is place for 117,800 children in daytime nurseries, 27 percent of which are accommodated in nurseries sponsored by industrial plants and JZD [unified agricultural cooperatives].

Although problems in comprehensive housing construction are being solved only slowly, progress was made in alleviating the housing shortage. A total of 100,700 apartments were completed in 1982, which was 5,300 apartments more than in the previous year. Of the total number of apartments completed, 21,300 were constructed by the community-run enterprises, 42,000 by cooperatives, 7,400 by enterprises and 30,000 by individuals. New starts were made for 82,100 apartments in the course of the year. Within comprehensive housing construction 1,250 apartments in socialist ownership were modernized. The plan fell short by 1,750 apartments.

Initiative work of citizens in the "Z" [community self-improvement] program contributed to the improvement of public facilities and utilities in a number of cities and smaller communities. For example capacities were increased by 1,188 places in daytime nurseries, 16,755 places in kindergartens, 3,990 places in basic schools. In addition, 56 social welfare establishments and 324 sales offices and service centers were completed.

There were 234,000 live-born children in 1982. A total of 118,000 marriages were contracted. In comparison with 1981, the population increased 51,000 in 1982 and the total CSSR population was 15,395,000 at the end of 1982.

The results achieved in 1982 demonstrate that there are realistic possibilities for the fulfillment of even more demanding tasks during the remaining period of the Seventh Five-Year Plan. This makes it imperative--as the seventh plenary session of the CPCZ Central Committee ordered--to make, in view of smaller raw materials and energy inputs, much more effective use of reserves in the national economy, primarily by substantially increasing the role of science and technology in economic development, by more flexibly adapting the structure and technical-economic standard of production to economic needs, by increasing participation of the Czechoslovak economy in the international division of labor and socialist economic integration, and by creatively applying and improving the system of management and planning of the national economy.

KVES ON NEED FOR ECONOMIC CHANGE

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[Article by Vaclav Kves, rector of the Advanced School of Politics: "Timely Tasks of the Political Economy of Socialism"]

[Text] Socialist economic science is on the rise, especially in the Soviet Union. This is gratifying. In Czechoslovakia also a series of valuable, although only partial for the time being, results have been achieved in solving certain timely problems of socialism's political economy. Despite this favorable evaluation, one cannot fail but see that there is still much to be done to meet the needs of social practice. The political economy of socialism is lagging in the elaboration of key questions, and it is suffering from a tendency toward scholastic theoretization. At the same time, the 26th CPSU Congress, the 16th CPCZ Congress, and the congresses of other fraternal countries have unambiguously emphasized the growing significance of science. As stated at the 26th CPSU Congress, "The tasks posed by practice demand that we develop theory, economic science, and bring it closer to the needs of economic practice."

Theory and practice are confronted with an exceptionally urgent general and permanently valid task: to ensure within the shortest possible time the socialist economy's transition from development of the extensive type to that of an intensive type, and the constant continuation of this development.

In terms of its significance, scope and consequences, the socialist economy's changeover from extensive to intensive development is a change of historical importance. It is a change in the development of the communist mode of production where a qualitatively lower phase--i.e., socialism--goes over into another phase. This new stage is characterized by a number of new, previously unknown, traits of socialist production relations, traits that reflect the intensification of the process of expanded socialist reproduction. In the present stage of society's development, this intensification is historically inevitable and is determined by the law of harmony between production relations and the nature of the productive forces' development. This is then a rearrangement in the course of which a delay in the development of its aspects must necessarily manifest itself in disturbances and difficulties in meeting the requirements of the other economic laws, including the law of the economy of time and the basic economic law of socialism, as a result of which the economic growth potential is not fully utilized, and the productive forces' development itself slows down.

Socialism, unlike capitalism, does not find the social forms of its development ready-made. These forms do not arise randomly. From its very beginning,

... been planned out in advance. The main characteristics of its economic development are determined by the laws governing the development of these relations, which are laid down by the ingenious classics of Marxism-Leninism. On their basis a great revolution in the history of mankind took place. Also after the victory of the Great October Revolution, every step and every change in the economic base was first prepared and "planned," and only then carried out.

Spontaneity, which is characteristic of capitalism, is entirely foreign to socialism. Such phenomena as the lack of conception, empiricism and pragmatism in economic development, which accompany random development. If such phenomena do occur here and there under socialism, they must be regarded as serious warning that socialism is departing from its historical mission, which under certain conditions can manifest itself in that the thinking of the masses turns against the party's economic policy and the economic teachings of Marxism-Leninism.

In the time of great historical changes, and the economy's transition to intensive development may be regarded as such a change, the importance of conformity to the plan increases immensely. The plans and projects for future development become more complex, complicated and--let us not be afraid to say it--also more revolutionary. In periods when qualitatively the economic relations were relatively stable.

The main task of socialism's political economy at present is to help prepare such plans (or projects) for changes in society's economic base that will confirm, by consolidating the results of the revolution in science and technology with the advantages of the socialist economic system, the superiority of socialism over capitalism, also in terms of the absolute level of scientific and technical development, not only in certain selected and vitally important sectors, but in the entire breadth of the productive forces' development. This is a historical necessity of the immediate future. As the Central Committee's report to the 14th CPSU Congress pointed out, "We can no longer advance further in individual areas . . . and at the same time allow lags of long duration in other areas." Only in this way can we fulfill the historical task of socialism: to surpass capitalism in the productivity of social labor and at the same time convert work into socialism's primary vital necessity. This of course must be accomplished through the all-round development of his personality on the one hand, and by eliminating mental, unskilled and heavy physical labor on the other.

Socialism's system of economic relations in the period of extensive development was not limited to this task. It ensured in its time the economically highly effective and absolutely essential full and gradual utilization of all available resources that capitalism had been unable to utilize. This was done predominantly with the help of the scientific and technical base that capitalism had created, thanks to the economic subjects' orientation toward mastering and using the adopted advances in science and technology. In this respect socialism achieved entirely exceptional and historically unprecedented successes.

Qualitatively the task today is a new one. The system of socialist economic relations must be regulated in a planned manner--i.e., on the basis of plans prepared in advance and comprehensively substantiated scientifically--so that it will lead to the creation and mastering of new and specifically socialist scientific and technical relations and concepts, of the kind that are not attainable in capitalist production, which is divided by private ownership. This is the actual

content of the socialist economy's intensification. A manifestation of this content will be a sharp rise in the effectiveness of production, and a corresponding change in the socialist manufacturers' position in world markets.

The slogan "Catch Up and Surpass" belongs to the past. It is no accident that the 26th CPSU Congress did not set for socialist science the task of adopting the knowledge gained elsewhere, but instructed it to present new knowledge, to "disturb" practice by pointing out wherever there is stagnation and a lag in comparison with the rest of the world. An important task of economic science is to reflect and propose what must be done so that this activity of socialist science may become an integral and constant part of the mechanism of the socialist economy's management and functioning. This cannot be achieved through so-called cosmetic modifications of the earlier mechanism, but only by gradually rebuilding it without delay into a qualitatively new mechanism for intensive economic activity.

Each day of delay in rebuilding the economic mechanism means substantial losses for society, because the extensive resources are exhausted, and the economic conditions are becoming more complex also in other respects. This is why Comrade J. Husak, speaking at a conference of the heads of the party's kraj organization in West Slovakia Kraj, urgently warned: "The more difficult conditions demand that we accelerate the economy's transition to the intensive path of development."

In his speech at the session of the CPSU Central Committee, Comrade Yu. V. Andropov criticized in the same manner the slow transition of the Soviet economy to the path of intensive development, particularly the slow progress in the practical application of the enormous reserves inherent in the development of science and technology.

The 16th CPCZ Congress established that in the past period our economy was not prepared for the problems posed for it by the objective external and domestic development. This fact created certain economic problems and difficulties, which we will be able to resolve after a certain time. But we must not allow them to press us into defensive theoretical economic concepts and studies of the kind that do not appreciate the objectively existing deep contradictions of present-day capitalism and strive to imitate some sort of seemingly "generally valid economic laws" under our conditions, in the belief that this will help us accelerate technical development, or which seek salvation in old "proven" recipes. This would be a serious and fatal mistake. The inexorable requirement of the Marxist logical and historical method of cognizing economic phenomena demands that we seek and find in a great historical change, such as the intensification of the socialist economy, the solution of all, more or less serious, economic problems through so-called well-defined class approaches that are conceptually new, principled and unambiguously socialist in their social content.

In addition to its ability to link up with everything positive from the past, the political economy of socialism must mainly be able to discover (and to transfer

...the laws that distinguish not only the higher phase of socialist economy's development from its lower phase, but also present-day socialism from present-day capitalism. These two creative tasks are contained in the scientific economic concept of socialism, oriented toward the eventual transition to the higher phase of a communist social and economic formation.

The political economy of socialism is the science of economic relations, and of production relations in particular. It investigates their essential features and the conditions of their manifestation. Engels wrote, and practice has confirmed time and again, that economic relations manifest themselves primarily as interests. Human interests are the motor that drives human activity, and this interest is the stronger and the more effective, the more developed the individual. They are induced or suppressed by stimuli; economic interests, of course, are induced or suppressed primarily by economic stimuli.

In the changeover from the extensive to the intensive type of development, it is essential to achieve basic changes in the behavior of people. Intensification of the economy is inseparably linked with the workers' innovation initiative. This is a result of the overall development of their creative activity, based on the efforts of each individual to improve and change the ingrained practice. The essential change in the subjects' behavior, from simple fulfillment of set tasks (which was necessary in the period of extensive development) to structural transformation, when most economic and technical problems were solved at the center), to the acceptance of the tasks with initiative and hence critically, and to active participation in their formulation, must stem from interests.

In connection with intensification, the problems of economic interests and economic incentives become the central and key area of socialism's political economy. This involves primarily the complicated analysis of the ties and interrelations that answer the cardinal question: What must be done so that all participants in the reproduction process, realizing to the maximum possible extent their personal interests and therefore possessing a sense of personal fulfillment, may realize simultaneously also the interests of society as a whole, and may identify as closely as possible with the tasks and objectives that the communist party sets in each stage of development?

In my opinion, the basic revolutionary tasks in economic science today, tasks by which it can and must contribute to the planned development of socialist society, are stated briefly as follows: appreciation of the role that economic interests play under socialism, including appreciation of the fact that the interest of society as a whole becomes a motive force only when it is transformed into the personal interest of the participants in the reproduction process; clarification of the conditions under which this process of transformation takes place; and the designing of a social and economic mechanism that creates and reproduces such conditions. These tasks are revolutionary partially because their solution will mean a qualitative jump in the cognition of socialism's economic laws, a jump for which the conditions in economic science are already ripe. Furthermore, they are revolutionary because their solution is an essential prerequisite for a qualitative jump in the development of the productive forces, based on the extensively developed innovation initiative and activity of all participants

in the process of expanded socialist reproduction, from its lowest level (the immediate producers) up to its supreme management. And finally, these tasks are revolutionary because only their fulfillment will uncover in their entire breadth and depth the basic differences and advantages of socialism in comparison with capitalism, the differences and advantages that could not fully evolve earlier when socialism had not yet entered the developmental phase of its maturity.

One of the important manifestations of the transition to mature socialist society in economic science is the shift now taking place in the subject matter itself of socialism's political economy: from the observation and investigation of the effects that the revolutionary changes in society's political superstructure directly have on the development of the productive forces (i.e., on the so-called real structure of the national economy), to the investigation of socialist production relations and of the effects that the changes in these relations have on the development of both the social superstructure and the productive forces.

The change in society's objectives in conjunction with the transition to a mature socialist society and with the intensification of the economy, and the corresponding change of the socialist economic system's target function from quantity to quality, must necessarily evoke, and be accompanied by, a profound and general change in economic thinking. The documents of the highest organs of the CPSU and CPSM are calling attention, constantly and urgently, to the need for such a change. Inertia in thinking, routine and ingrained habits often are pointed out as one of the principal causes of the existing difficulties. But if economic officials and other workers are to replace the earlier objectives of their economic activity with new ones that often are the exact opposite, and if they are to adapt their outlook on life to these new objectives, then they must be forced and induced to this change of mentality by the functioning of the economic mechanism. Economic awareness and economic interests are communicating vessels.

However, there is also another side to the formation of socialist economic awareness. It is the planned orientation of the economic subjects' behavior in accordance with the recognized economic laws and in conformity with them. People must know what decisions are economically sound for them and for society. Here the communist party provides the basic orientation, through the resolutions of its organs. Such an orientation at present, for example, is the set objective to perfect the planning of the national economy, in combination with the more effective utilization of commodity and money relations, so as to maximize the final results.

For the needs of economic decision-making by members of society, the policy and the social and economic objectives set by the party must be specified and elaborated, proceeding from the general to the particular. Here again economic science performs a unique social function by thinking through the basic concepts and objectives in all their interrelations, to the details of their realization. For this purpose economic science uses, especially more recently, the methods of modeling. It constructs models of functioning real systems of economic relations, and in these models it predicts the effect that the interests generated by certain elements of the system will have on the behavior of the subjects, and the consequences of this behavior in the interactions between the subjects and the elements of the system, and in the system as a whole, etc.

...path of development of socialist society. Along the path of development of socialist society, the economic laws are a necessary condition for the orientation of the economic system, and for the managing subjects in particular, in their economic activity. Similarly to them, economic science is able to fulfill its function, that of actively influencing the formation of the people's awareness, and thereby it can become an active component of ideological struggle. Obviously the role of science in this struggle is the greater, the more it is based on model concepts, i.e., the more they are in accord with the requirements of the times and with the workers' life experience. The studies, proposals and themes that are divorced from life, in which nonobjective and unrealistic cause-and-effect relationships are foreseen, are not convincing and therefore have little or no influence on the formation of the people's attitudes. These are usually erroneous steps, sometimes even steps backward, along the path of learning more about the economic laws. If they are accepted as the basis of practical measures in the economy, they can be even directly harmful to socialist society. For example, they could result in that the real functioning of the economy is divorced from its normative form, and hence from the conception of the economic system, leading to corruption, speculation and other antisocial phenomena.

One of the most challenging level of economic modeling at present is the elaboration of aggregate model concepts of the entire economic system of a mature socialist society. A significant proportion of the economic research capacity is now devoted to this problem, not only in the Soviet Union but also in Czechoslovakia and other socialist countries.

New Tasks, New Approaches to Their Solution

The task of science is to gain ever-better knowledge of objective reality. This applies also to the political economy of socialism. It explores the laws and regular patterns in the development of socialist economic relations as developmental tendencies that are objectively asserted through the activity of subjects, the people. It clarifies the causes and effects of these tendencies and predicts their future trends, for the purpose of applying its knowledge to practice. It develops scientific hypotheses and theories, each new theory being the criticism and improvement of the old, another small step along the path of social cognition. The political economy of socialist society is reaching the stage of its maturity opens entirely new prospects for the political economy of socialism. And science, political economy, by performing its mission, aids the further progressive development of socialism.

Aspirations of the CPSU and especially of its 26th congress point out, advanced socialism will be a long period of development in which socialist society still be developing already on its own basis. In the past society had to cope with many traits of its development that were not typical of socialism, negative from the viewpoint of its objectives, and had been inherited from capitalism, in the area of the productive forces, and also in the basis and superstructure of society. And in contrast to the past, advanced socialism is a developmental stage in which the mutual unity and harmony of the various aspects of society's life manifest themselves clearly.

This applies also to the economic laws, in whose functioning their mutual unity and dependence, complexity and systematic nature are much more pronounced than

previously. The basic economic law the law of planned and proportional development, the law of the economy of time, the law of value, the law of remuneration in accordance with the work performed, and the other laws constitute an internally conflicting whole, but they are linked together by dialectically conflicting unity. However, their mutual contradictions are no longer of an antagonistic nature. Their functioning is not mutually exclusive in any respect and to any extent, but conditional and supplementary. The contradictions between them must be solved--on the basis of ever-deeper knowledge of them--through their ever-wider, better and more comprehensive application. The instrument for this is primarily the planned perfection and development of the economic mechanism.

Practice confirms that the application of each of the objective laws, which constitute a unified system, is important and mandatory. Trouble occurs wherever we are unable to create optimal conditions for the realization of the requirements of any one of these laws; then the requirements of the other economic laws likewise cannot be met. For example, the imperfect application of the law of proportional development and of the law of value causes disturbances in the functioning of the law of remuneration in accordance with the work performed, and a decline of the workers' initiative; in the same way there are disorders in meeting the requirements of the law of the economy of time, and of the basic economic law of socialism.

In addition, cognition of the laws and the laws themselves are the more meaningful, the more mature our reality. Only under the conditions of advanced socialism do the economic laws manifest themselves as clear developmental tendencies that can be reliably explored by the method of scientific abstraction. On the basis of this knowledge it is then possible to formulate the objectives of further development, and the model changes that will lead to optimal fulfillment of these objectives under the specific conditions in Czechoslovakia, i.e., with the least expenditure of social labor.

For the aforementioned reasons, learning thoroughly the concept of advanced socialism and its complete creative application are of basic significance for the development of socialism's political economy. However, this does not mean merely that in advanced socialism the replacement or suppression of one economic law by another is entirely out of question. In addition to this qualitative aspect of the matter, it is necessary to take into consideration also the other, quantitative, aspect. Advanced socialism brings with it also a clear increase in the proportion of the economic law's application (in other words, in the proportion of decisions based on economic principles) in the solution of broader social problems. For example, the significance of remuneration in accordance with the work performed, and of the balance of supply and demand, is much greater from the viewpoint of solving social problems, which themselves provide much stronger economic feedback in an economy of the intensive type. Here it will be appropriate to recall the words of Comrade L. I. Brezhnev at the 26th CPSU Congress: "For specifically in the economy is the base being built for the fulfillment of the social tasks, for strengthening the country's defense capabilities, and for an active foreign policy. Specifically here are the necessary prerequisites being created for the successful progress of socialist society toward communism."

Therefore it belongs among the important methodological tasks of socialism's political economy to distinguish the problems, categories and phenomena that are essentially economic ones, from other ones that manifest themselves in various

economic behavior, but are not governed at all by objective economic laws. For example, economic behavior is often equated with economization, even in institutions that typically belong in the superstructure. This is a confusion of concepts. The essential characteristics of economic relations--the motivation for the optimal behavior of the subjects, the tendency toward proportional and planned development, etc.--are overlooked. Serious negative social consequences arise, for example, also when planning in itself is regarded as a sufficient manifestation of conformity to the plan, or when the laws of the adequate economic category of price are applied to the quantity of the actually incurred costs, without regard for the social usefulness of the product, etc.

Fulfillment of the mentioned task will not mean merely "purging" the economics dictionary and standardizing the meaning of the categories and concepts employed, which is essential in every scientific discipline. This will also help to clarify the content of the functioning of many general economic laws under the conditions of socialism, and especially to define the specifically socialist content of these laws. Thereby the door will be closed not only to many voluntaristic interpretations of the economic laws, but also to many subjectivistic and voluntaristic decisions that actually ignore these laws.

A specific aspect of the mentioned task, one that requires special attention, is the need to overcome technocratic approaches to the economic problems, i.e., approaches that claim to be doing the opposite but actually are reducing or ignoring political economy's social content or are striving to remove this content from political economy. Their manifestations are different, as are their roots.

Their basic manifestation at present is their nonhistorical view of the process of the economy's intensification. They strive to solve new problems by the old methods and with the old instruments. They do not realize that the purpose of the earlier policy of rapid and basic macrostructural changes was the formation of a modern capital assets base for socialism, and that since the construction of this base it is necessary to give preference to a policy of macrostructural continuity and to maximally utilize the existing capacities.

The advocates of technocratic approaches come up with ever-newer proposals for continuing the transformation of the economy's branch structure. Their argument is that certain branches are "modern" while others are "not modern." They promise that modernization of the economy's structure will produce great returns from scientific and technical development, without investigating more thoroughly the question of creating the demanding real conditions for such a development (the development or respecialization of the scientific research base) and the systems conditions (by generating the interest of the reproduction process's participants in innovative behavior, and by creating a so-called innovative climate in the economy).

A common characteristic of the mentioned approaches is that the so-called material questions of the productive forces' development are divorced from the so-called systems questions of perfecting production relations at the transition to a mature socialist society. As a result, the role of economic interests in the development of socialist society is underestimated, which necessarily leads to the nonorganic substitution, not substantiated by the models, of the big unknown of the moral incentives' anticipated effects, for economic incentives, in the long-range studies.

The outcome of such approaches is often a one-sided monitoring of various quantitative technical balance equations of the productive forces at home and abroad, their extrapolation not infrequently with the help of computers and econometric methods, and also their perfunctory transplantation from the conditions of the advanced capitalist countries to the entirely different social and economic conditions of our society. A natural consequence of the fact that in studies of this kind their realization is not predetermined by the interest mechanism of the economic relations is that practical decisions on economic questions are relinquished to subjectivism, and the decision is delayed of the real and mostly very complicated and demanding problems that are related to the economy's intensification and lie in the area of the economic base or, in other words, in the area of socialist production relations.

The growing significance of utility value under socialism is sometimes cited as an excuse to justify technocratic approaches to the solution of the problems of the economy's intensification. But to utility value there is attributed a non-economic content consisting of separately measurable and recordable technical characteristics and parameters. There are even views to the effect that the political economy of socialism should investigate these aspects of the products of human labor, and the fact emphasized by Marx is overlooked that utility value is a social category, the carrier of value, and is realized in the process of satisfying society's needs whose variability and relationship to the development of value and prices constantly change also the set of characteristics with which these needs are satisfied.

In order to gradually and successfully fulfill the mentioned two tasks of basic methodological significance, what Comrade G. Husak said at the 16th CPCZ Congress must be fully applied to the political economy of socialism: "Development of the social sciences cannot dispense with creative debate, a critical environment, bold inquiry, and especially with a principled party approach." At the same time it is not a simple task to evoke creative debate and to form a critical environment in economic science. We know from experience that such debate does not exist for the time being. How often have we established recently the paucity of principled disputes over views! In each case this paucity was merely established, but disputes did not erupt anew. Our economists do not know how to debate or, for various reasons, do not want to. When critical views emerge, there is more interest in who has been criticized and what label has been attached to him, than in the view itself or in what the scientific dispute has been all about.

In my judgment, efforts to evoke debate and disputes for the purpose of bold inquiry, in which objective truth is the sole authority, should be one of the principal directions, if not the main direction, of perfecting the management of economic research which lately has been receiving the attention of the highest party organs. The performance of research managers should be evaluated, among other things, on the basis of how they have been able to generate a creative and critical environment. For if our researchers learn how to debate, to counter arguments with arguments, to formulate their questions and answers precisely, to criticize and to welcome principled criticism, then they will not be afraid of their own shadow. Herein lies the greatest reserve in scientific work, one that will uncover the real abilities of each researcher as well as the possibilities for their utilization.

"...but scientific work that seek objectively true knowledge cannot dispense with frank debate, with a creative environment that must be formed, fostered and defended in every scientific collective." Comrade L. Strougal reiterated this, in his address at the ceremonial general meeting of the CSAV [Czechoslovak Academy of Sciences] in 1982.

New Approaches to the Solution of the Tasks, New Contributions to Social Practice

Scientific activity of the intensive type is a constant characteristic of the development of advanced socialism's economy. This determines also the change in the content of the tasks with which political economy must concern itself if it is to fulfill its mission in relation to social practice: to inspire it to the nonconventional and effective solution of economic problems, in accordance with the requirements of the times.

Under conditions when society owns the means of production, changes in the economic mechanism and other innovations in economic relations begin and end with the forms in which this ownership is realized, i.e., with the methods by which society centrally manages--and especially plans--the reproduction process. The workers' behavior in production, with which the process of intensification is concerned first of all, depends primarily on these forms and methods.

From the viewpoint of the economy's intensification, the shortcomings in national economic planning and in the activity of the central managing organs are of a basic nature. The greatest such shortcomings are the producers' persistent orientation on quantity, instead of quality and efficiency, the low degree of responsibility for the actual results of economic activity and the resulting lack of interest in technical development and in effective participation in the international division of labor, which has unfavorable consequences also for the country's economic situation.

However, the necessary radical change will not occur merely by modifying some of the indicators or by replacing them with others. It is necessary to continue perfecting the economic mechanism, the main directions of which are outlined in the principles of the Set of Measures. As I have mentioned earlier, the modeling of these principles, including suggestions for changes in the methods of management, in the content of the national economic plan and in the activity of the central organs of management, is a task of primary importance in economic science.

The first promising results of our economic research in this field have already appeared last year. They have confirmed, among other things, the fruitfulness of team research, and that the mentioned creative debates are indispensable. On the other hand, however, they have confirmed also the well-known experience that the greater the creative contribution and the novelty of the research conclusions, the stronger is the resistance from supporters of established practice and routine, and from bureaucrats.

The mentioned research demonstrated that one of the basic theoretical questions, without whose solution we will be unable to make any progress in a number of areas of management practice, is the relationship between conformity to the plan on the one hand, and commodity and money relations on the other. Explicit voicing is now rare of the view, once generally accepted but subsequently disproved by economic theory, that these two categories are in a mutually antagonistic conflict,

and that the development of one means the curtailment of the other. However, this view still persists in the solution of various specific theoretical and practical questions, in which the dialectical unity of the law of planned and proportional development and of the law of value should be asserting itself.

Realization of the designs to unify planning in physical units and in value terms, by optimizing the value of the physical proportions, changeover to the plan-conforming control of prices as the "relationship between costs and utility value," changeover from the concept of a balanced plan to the concept of a plan in equilibrium and to corresponding economic instruments for the plan's realization, and similar theoretical and practical tasks evidently disturb conventional--i.e., inertial--economic thinking and existing practice so keenly that in the course of their solution such "theoretical" arguments are still being raised as the ones which distinguish physical proportions from value proportions, treat the law of value as a synonym of randomness, contend that commodity and money relations are the limits of the plan, etc.

The more knowledge we gain about the economic laws of advanced socialism, the more important becomes the principled and consistently applied solution of the problems concerning the nature of commodity production and the specific characteristics that the socialist ownership of the means of production imparts to this type of production relations--in distinction from, and in contradiction with, the characteristics imparted to them by capitalist ownership in general and in the present monopoly phase of its development in particular. For example, it is necessary to confront consistently from class positions--i.e., thoroughly on the basis of theory--the views that regard either the producer price corresponding to capitalist free competition or the present monopoly price as the basis for solving the still open question of the socialist modification of value. We must proceed in the same manner also with regard to the opposite manifestations of economic romanticism in interpretations of commodity production under socialism, interpretations that regard the law of value as unnecessary junk for socialism, without offering any proposal the least bit realistic for the practical stimulation and measurement of production's economic effectiveness.

For the needs of objectivizing the determinants in the processes of making practical economic decisions, political economy still owes us solutions to two key tasks. The first is the theoretical elaboration of the criteria of economic effectiveness, for selecting the optimal variants at the different levels of economic management, criteria that will objectively express the economic interests of the given level of management (and therefore will be used consistently by it); at the same time these interests should be in accord with the real needs and interests of society as the owner of the means of production. The other task is to develop and specify the economic categories of socialism to such a degree of exactness that society will be able to use them on an ever-wider scale as objectivized instruments of the central planned management of the economy's development. This could gradually free central management of using various indicators characterized by strong subjectivism (in setting their values, in their being not comprehensive, in their effects on the controlled object, etc.), whereby it is possible to circumvent or ignore their mandatory nature, with all the negative consequences for society. This will increase also the scope and proportion of optimal decisions.

... must also draw attention to the very important task for the political economy of socialism, a task that is directly related to the socialist nature of the law of value and of commodity and money relations, and to a certain extent also expresses this nature. This is the problem of ensuring harmony between the rate of work and the rate of consumption, and control of this harmony by the entire people. A part of its solution is, on the one hand, the complex problem of economic equilibrium as the mode of maximally realizing utility value in production, and as a consequence and condition of developing all the productive forces under socialism; and on the other hand, also the changeover from remuneration based on the quantity and quality of the work performed, to remuneration according to the final results of the work performed.

... solution of both sides of this problem in their unity is of exceptional economic, and also political importance, because it is a condition for introducing qualitative changes in the methods and forms of asserting the principles of democratic centralism in the economy. This will permit a gradual changeover from the present, predominantly institutional, concept of the workers' participation in economic management, to its predominantly interest concept later on.

When listing the principal substantive tasks of the political economy of socialism and characterizing the practical contributions that their solution can be expected to bring, we must not overlook the problem of international socialist economic integration and of external economic relations in general. Here again it is necessary to seek new creative solutions. The basis of such solutions must unquestionably be the interpretation of the role of external economic relations predominantly from the viewpoint of their function in achieving savings of social labor, and the interpretation of economic integration as the continuation and development of the process of intensification into international relations. This is how the process of economic integration is interpreted in the materials of the 16th CPSU Congress, and from this interpretation followed the specific directions for perfecting the mechanism of integration, including also the harmonization of the structures of the economic mechanisms.

However, it is possible to harmonize only the economic mechanisms that act in the direction of integration, i.e., against autarchy. Therefore the central task of harmonization is to increase the responsibility of the enterprises for the results of their activity and for their presence in the markets of the other socialist countries. Albeit a partial one, this is an essential question of expanding the independence of the associations and enterprises. The answer to this question requires that it be considered already now in practice, as Comrade Yu. V. Andropov pointed this out recently.

It is obvious that the present, predominantly macroeconomic, approaches to integration will have to be supplemented also by the solution of the microeconomic questions, in the same way as international scientific and technical cooperation must be supplemented by an innovative environment in the individual socialist countries. If we do not wish to leave unutilized that part of their results which incorporates human labor of the highest skill that is in shortest supply.

We remember the time when practice approached economic science with the demand that the latter write something on this or that topic, and the text then served

is a "theoretical introduction" to a report containing empirically substantiated proposals or measures that did not have much to do with the results of scientific cognition. With the changeover of our economy to development of the intensive type, such attitudes toward scientific work necessarily had to disappear.

The task of economic science is to seek increasingly new solutions to new problems, through the application of new approaches derived from a new conception and interpretation of the most general economic laws, from a conception corresponding to the new and higher level of our knowledge of socialist economic relations. Thus the point is not merely to write something, but to write what will inspire the organs of economic practice to solutions that these organs themselves would have been unable to work out without the results obtained by the political economy of socialism, and without their application to the individual areas of economic policy.

Practice will not be able to leave such outputs of economic science go unnoticed, because they will challenge practice intellectually, provoking debates and disputes, until finally, as a result of these disputes, the outputs will enter the economic subconscious. These are scientific outputs that represent the highest given level in the cognition of objective reality and cannot wait with their conclusions until this or that problem ceases to be controversial and has only one generally recognized solution. The greatest contributions to practice are usually the initially most controversial solutions that are based on still fresh offshoots of new intellectual approaches and on a scientific, critical analysis of the existing practical solutions. Economic science that gives society outputs of this type will best serve the truth, and hence also the party.

TRADE UNION ORGANIZATIONS FLEXING MUSCLE

Prague PRACE in Czech 27 Jan 83 p 1

[Text] Although the plant committees of the ROH [Revolutionary Trade Union Movement] have considerable jurisdiction in the legal labor relations, they have been lax in exercising it. According to Article 22 of the 4th Trade Union Congress Resolution, the ROH plant committee can recommend that organizational managers who violate the labor codes have their bonuses withheld, receive a reprimand or even that they be recalled from their function.

The results of a study conducted by trade union organizations during the past year indicate that many of the managers do violate the labor codes. Whatever the reasons for violations (most frequently lack of familiarity with the codes), the number of punitive measures recommended by the ROH plant committees does not correspond to the number of violations of the labor code. However, there are places where the unionists consistently take action against such practices.

The plant committee of Chemlon in Humenne recommended to the general manager that the bonuses of two of his deputies be cut for nonfulfillment of contractual obligations toward the collective.

Similarly, the ROH plant committee in Vihorlat, plant Michalovce, caused that that the bonus of the deputy director for technology be reduced. Further, the ROH plant committee conference recommended fines for those managers who are not fulfilling their obligations arising from collective contracts.

On the basis of a recommendation by the ROH plant committee in Lesni zavod [Forest enterprise] in Svidnik, which has been concentrating on matters of safety and health conditions in their work, the plant economist had to forgo part of his bonus for not eliminating the shortcomings determined during a public inspection on work safety.

Two foremen in the Lokomotivni Depo in Breclav had their bonuses reduced for similar violations.

Several managers, the plant economist, production manager, chief of the fire, and employee safety, and health department, the plant mechanization specialist, shift leaders and production foremen, received reprimands, again based on the ROH plant committee initiative, for nonfulfillment of contractual obligations.

But still, we continue to encounter lack of respect for the legal jurisdiction of the ROH plant committees by the enterprise management. A deputy director of Zdravoprojekt [Health Project] had to "pay for it" when he was given a reprimand for improperly introducing a bonus system in the organization. Deputy Director of the Hygiena a Epidemiologie Institute in Prague 10 had to forgo his annual bonus because he jeopardized the employee wages in his organization. The initiative for the punitive measure came from the ROH plant committee even though it assisted the director in the solution of work problems during the entire period in question.

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LACK OF MERIT PAY, INCENTIVES AFTER 2 YEARS OF MEASURES DECRIED

Prague RUDE PRAVO in Czech 18 Jan 83 p 1

[Editorial]

[Text] Methods of compensation play an important role in influencing the process of national economic development. The principles of compensation according to merit applies under socialism. This means that the relationship between higher compensation and the results of a specific activity is determined by the amount, quality and social significance of the work performed. The effectiveness of compensation is to a great extent dependent on the proper implementation of the above relationship. The more objective the link between compensation and the results of work, the more effective is the functioning of economic incentives. If, however, the level of compensation is set by criteria other than economic interest, its effectiveness declines.

This is why the merit principles is so strongly emphasized in the Set of Measures for Improving the Planned Management System of the National Economy. In the regulations that have been in effect since 1 January 1981, it is directly stated: "A fundamental turnaround in the stimulative effect of wages is to be achieved by means of the thorough implementation of the merit principle in such a way that the public and economic position of every employee becomes fully dependent on his contribution to society. Economic incentives must be linked with economic responsibility and penalties. The proportional development of wages and public labor productivity is to be assured by means of the sharp differentiation of wages according to merit.

As the foregoing implies, the Set of Measures attaches crucial importance to the linking of economic incentives for organizations and individuals to their work and managerial performance. In comparison with previous practices, this amounts to a radical change in approach and attitudes toward management, primarily in the practical implementation of wage policy.

This means implementing in the compensation structure more substantial differentiation corresponding to actual social contributions, the assurance of the closest possible link between the development of wages and national income formation along with public labor productivity, and the strengthening of the incentive function of wages oriented toward the critical aspects of economic efficiency.

The implementation of the above principles has brought fundamental changes in the regulation of wage development, both in techniques for generating wage resources and in their distribution. The greatest percentage of wage resources is dependent on adjusted values added. The remainder of wages payable is tied to aggregate indicators of economic efficiency.

An organization which works well has the real possibility of increasing planned wage resources, while poor performance will result in a reduction in the resources available to it. Besides the standard contributions to the economic incentive fund, they may obtain resources in excess of the plan by speeding up the innovation process, introducing the production of technically sophisticated products, first-quality products, etc. Less advanced organizations which produce technologically obsolete products or goods of the third-quality category are severely constrained in their wage resources; the same is true in the case of low-quality products in the sense that a penalty representing the damages caused by these products is deducted in full from economic performance figures.

The basic approach, then, rests on the principle that he who fulfills his personal assignments well should be economically and morally rewarded according to merit. On the contrary, he who lags behind at work must reckon with consequences that will affect the amount of his paycheck.

After 2 years of validity of the Set of Measures, it may be stated that positive results may definitely be noted in the implementation of the socialist principle of compensation in firms and in economic production units [HJ], but that we cannot be satisfied with personal compensation in the above context. Unfortunately, the former unhealthy practice of the leveling of wages and compensation may be noted, without regard to the results and the quality of work.

The introduction of order and proper differentiation into the compensation structure is clearly the most sensitive mandate of the Set of Measures, and is undoubtedly a matter of much conflict. For this reason, the average managerial worker approaches its resolution ambivalently and inconsistently. The problem does not lie in paying a better wage for meticulous, high-quality work, but in explaining to the laggard that his work is not worth the wages he has been receiving for it. This arises from the fact that the principle of socialist economic incentives is often understood simplistically, solely as an opportunity for increasing wages, while forgetting about the less often cited aspect of material penalties in instances when the value of the work performed does not correspond to an objective standard, expressed in the final analysis as higher wages.

In discussions organized by RUDE PRAVO with workers and managerial employees, we have heard more than a few examples of a correct understanding of economic incentives, of proper relationships between the amount, quality and social significance of work, on the one hand, and higher compensation, on the other. In such enterprises, production personnel are satisfied because the levels set for their compensation shows them that their efforts in contributing to the increased effectiveness and quality of all work are being noticed and are valued. However, such examples so far have appeared only in the actual

the principle is applied to a lesser extent and then only in isolated cases in connection with other activities. This shows that there has not been a complete implementation of the merit principle. Management must, therefore, proceed much more intentionally with the effective assistance and support of party and trade union apparatus.

The main factor supporting the implementation of the merit principle is the introduction of a type of compensation in which the compensation for the collective is based on an aggregate and the brigade itself decides the share to belong to each of its members, based on the volume and quality of work performed. It must be noted that this approach releases managerial employees of the responsibility to evaluate and how, since this responsibility is now placed on the collective. On the other hand, the brigade technique places great demands on the assurance of the preconditions and conditions for the fulfillment of planned brigade tasks by managerial employees.

Another aspect of compensation according to the merit principle so far has been uneven spending, unmeasurable activities, i.e., those activities which cannot be measured in meters, tons, or any other concrete physical unit. These wages are determined by the pertinent rates, but the distribution of compensation has so far been roughly determined, i.e., subjectively. And yet even for many of these activities it is possible to develop a system of valuation according to achieved results, for instance, over longer periods than those required for the work.

At the same time, new techniques are being sought and successful ones are being found. For instance, compensation for maintenance mechanics is determined on the basis of the amount of downtime caused by inadequate maintenance of the different types of a given piece of equipment. It is, then, not surprising that maintenance men with an economic stake in periods of uninterrupted machinery operation undertake maintenance and repairs even on their days off.

Nevertheless, there exist examples of the improper linkage of one activity with another, either not directly related to it or which cannot influence it. This is the case of enterprises where a portion of the bonuses and wages of technical employees is tied to the fulfillment of the firm's production targets or the firm, even though there is no direct material or moral relationship between the two. This weakens the economic incentive for technical employees in the fulfillment of the firm's tasks in research and development.

There are also a great number of economic organizations that no effective criteria have been established in the bonus regulations which might lead to incentives for workers to increase the quality of production and to use materials, fuels and energy rationally. This is due, in part, to a lack of interest in some firms in the objectivization of the criteria which is necessary in the introduction of bonus regulations. It goes without saying, however, in regard to the excessive consumption of material resources.

All organizations and enterprises which are diligently working through the 14th Measures have substantial economic incentive. They can merit serve, through their economic results, as an example and inspiration to other enterprises and organizations, so that they might approach this aspect of the improved planned management system with more initiative and consistency than previously.

It is necessary to note that consistent compensation according to the amount, quality and social significance of work also places the strengthening of the standards of living on more solid and reliable foundations, since this may be only as good as the performance of the national economy. And this is directly dependent on the level of efficiency and quality of all work. This is the irreplaceable mission of properly implemented economic incentives--the inspiration of workers to ever better performance.

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CSO: 2400139

ENERGY PROBLEMS VIEWED IN TERMS OF COST OF ENERGY

Prague FINANCE A UVER in Czech No 11, 1982 pp 732-740

[Article by Ing Vladimír Šiba: "Some Aspects of the Energy Problem, Particularly in Terms of Energy Cost"]

[Text] Table 1 shows the trend in the primary energy resources used in the CSSR during the recent period ¹⁾. In comparison with the previous in terms of energy consumption relatively economical year, their increase amounted to 3.0 Mtp (megatons of standard fuel) in 1980 and was the highest during the period surveyed. While the primary energy resources used in our country increased 4.6 percent during the 1977-1980 period, that is 1.5 percent annually on the average, they increased 3 percent in 1980 in comparison with 1979.

Table 1

	in Mtmp (1 Mtmp=29.3076.10 ¹⁵ J)			
	1977	1978	1979	1980
Primary energy resources used in the CSSR (megatons of standard fuel)	98.4	101.0	99.9	102.9

Although the indicator of primary energy divided by the number of inhabitants does not represent average energy consumption per capita because an overwhelming majority of energy resources is consumed with varying efficiency in manufacturing, this indicator nevertheless gives an approximate, conditional idea about energy consumption in the economy. Table 2 lists per capita consumption of primary energy resources in our country as well as in some foreign countries.

Table 2. Primary energy resources used in tmp per capita

	1974	1977	1978	1979	1980
CSSR	6.0	6.5	6.7	6.6	6.7
USSR				4.7	
USA				11.2	
FRG				6.9	
Great Britain				5.6	
Japan				3.6	

likewise, standard consumption of primary energy per unit of production is not an accurate indicator (in varying amounts). However, since we do not know energy consumption in manufacturing in other economies, nothing else can be done for an international comparison. Despite the qualified nature of methodological and currency comparability from the standpoint of the amount of energy produced, excessive energy consumption in our economy stands out. (See Table 3). In terms of net production in relation to energy consumption, efficiency of our production is substantially lower than in other economies with essentially similar and comparable production and consumption conditions.

Table 3. Primary energy consumption in 1978 a)
in tnp per \$1,000 of national income

CSSR	3.4
FRG	1.6
Belgium	2.0
Great Britain	2.3

a) according to research material A 02-125-107-01, the stage of the "Variant of Development of the Energy Sector up to Year 2000 with more Effective Use of Resources," Power Research Institute, December 1981

Czechoslovak energy consumption continues to be considerably high indeed. In comparison with the preceding year, it again increased in 1980, although the consumption of primary energy resources remained below the planned level, and consumption of primary energy actually was 5.3 percent below the original plan. This was not achieved by additional economy measures in fuel and energy consumption, but resulted mainly from the nonfulfillment of the original state production plan for some energy-intensive products.

Table 4 illustrates the structure of primary energy resources according to the manner in which they were obtained. The share of domestic natural resources--essentially coal--in the structure of primary energy resources further declined during the period surveyed, while the share of imported refined fuels--crude oil and natural gas--increased.

Table 4

	Structure in Percentage		1980/1977 growth rate
	1977	1980	
Energy from domestic natural resources	68.5	67.0	102.2
Excess of direct energy imports over direct energy exports	31.6	33.3	110.0
Increase in fuel supplies	<u>-0.1</u>	<u>-0.3</u>	<u>-224.0</u>
Primary energy used in the CSSR	100.0	100.0	104.6

In accordance with it, the structure of primary energy resources by type in terms of energy efficiency registered favorable, though not substantial development

in our country during the period surveyed (See Table 5). Refined fuels in the USSR account for only approximately 50 percent of their share in some economically developed countries. This itself increases our consumption of energy-generating resources.

Table 4

Fuel structure of energy production

	CSSR 1977	CSSR 1979	FRG 1979	CSSR 1980
Solid fuels	65.9	63.2	27.7	62.0
Liquid fuels	26.4	26.7	51.0	26.3
Gaseous fuels	6.5	8.1	16.0	8.9
Others	1.2	2.0	5.3	2.8

The smaller the energy losses in the use of energy resources, the greater the effect produced by them. The energy losses in the power-generating processes in the fuel and power industry, that is in the mining, preparation and refining of fuels, and in conversions into thermal and electric energy are ascertained, recorded and reported. However, the energy losses in so-called "final" energy consumption, that is, in the consumption on appliances outside fuel-energy processes are not reported and therefore can only be estimated. Our estimates of losses of energy resources and of their effective consumption are shown in Table 5.

Table 5

	1977	1980	in Mtmp 1980/1977
Primary and secondary energy resources used in the CSSR (including deficits)	98.8	103.2	104.6
Energy losses in its use (estimate)	- 57.6	- 60.4	104.9
including: energy losses in power-generating processes	- 35.0	- 36.7	
energy losses in consumption by appliances (estimate)	- 22.6	- 23.7	
Effective energy consumption (estimate)	41.2	42.8	103.9

The magnitude of energy losses depends upon the technical equipment used, on technology, but also on the type structure of energy resources. The losses are usually greater when solid fuels are used than when fluid and gaseous fuels are used. Let us demonstrate it on heat and electricity production in Table 6.

Table 7

	1977	1980	in percentages	
ratio of solid fuels in heat production	67.7	62.4		
Energy losses in heat production	27.1	26.4		
Ratio of solid fuels in electricity production	85.3	79.2		
Energy losses in electricity production	69.5	68.8		

The primary and secondary energy resources were used in our national economy in the manner indicated in Table 8.

Table 8

	(Mtmp)	1977 Structure (Percentage)	(Mtmp)	1980 Structure (Percentage)
Primary energy resources used in the CSSR	98.4	60.2	102.9	60.5
Secondary energy resources used in the CSSR	1.4	0.8	1.9	1.1
Energy derived from refining of fuels and conversions of energy	64.7	39.6	66.9	39.3
Deficits [bilanční rozdíl]	- 1.0	- 0.6	- 1.6	- 0.9
Total fuel and energy inputs into the economy	163.5	100.0	170.1	100.0
consumption				
Fuel and energy consumption in manufacturing	142.0	86.9	147.0	86.4
including:				
power generating processes	99.7	61.0	103.6	60.9
others	42.3	25.9	43.6	25.5
Nonproductive fuel and energy consumption	21.5	13.1	23.1	13.6
Total fuel and energy consumption	163.5	100.0	170.1	100.0

Energy consumption in manufacturing, which represents more than 50 percent of total energy consumption, is of key importance. Energy consumption in manufacturing is the output of new values in production, the formation of the "social product." Energy consumption in manufacturing is part of material consumption in the formation of the social product. In order to be able to state in economic terms and plan energy consumption in manufacturing, which is the task of the energy problem in our country, in order to be able to compare it with other national economic quantities and to measure efficiency of its use, that is, to measure effectiveness of energy consumption in manufacturing by the newly produced values, energy consumption in manufacturing must be properly quantified. This means that energy consumption in manufacturing must be expressed not only in physical, but also economic units, that is, in terms of rubles. In order to do this, in line with the use of the same method which is employed for the quantification of the social product and total consumption in manufacturing.

In order to express energy consumption in manufacturing in economic terms, we have used the reproduction costs of the national labor necessary for providing energy. These, due to their methodological definition, reliably reflect operating, investment and foreign-exchange expenditures on the expanded reproduction of industrial energy. The reproduction costs are the sum of production costs and the fuel-power industry's own accumulation for the reproduction of its own product. They include the actual import prices of imported fuels and the prices of domestic fuels. The advantage of reproduction costs is that they are expressed in monetary terms and are not complicated by the problems of foreign exchange and problems of redistribution of values.

Reproduction costs are a more reliable criterion than prices even in those instances when prices reflect the social expenditures of the national labor on energy, because the prices must discharge also other functions. For example: while the prices of coal are in direct ratio to its quality, the costs of mining and processing of a ton of fuel in a specific location are not directly dependent on its quality and are usually higher, when the coal is of inferior quality. These costs, according to the conditions of sale, and in case of energy, for example, vary according to the amount consumed, and so on.

The reproduction costs of our national labor on obtaining energy very rapidly increase. This is caused both by the increases in the world prices of fuels which we import and by the increasing operating and investment expenditures on domestic production of energy (for example, on production of electricity) and on the mining of domestic fuels whose deposits, insofar as they were of better quality and readily accessible, have been essentially depleted and the mining operations continue in the constantly deteriorating mining, geological and location conditions where the caloric value of the coal, its other qualitative parameters and sulfur content are becoming increasingly worse.

The rapid increase in the trend in the actual production costs 108 customer per ton of fuel, the increase in the power plants in recent years.

Table 9

	1977	in Kcs/tmp 1980	1980/1977
Coal from North Bohemian Brown Coal Mines (SHD)	263.70	328.28	124.5
Coal from Brown Coal Mines and Briquette Plants (HDB)	289.02	255.20	88.3
Coal from Coal and Lignite Mines (ULB)	589.98	760.24	132.2
Coal from Kladno Mines (KD)	646.99	788.69	121.9
Imported natural gas	640.53	890.28	139.0
Heavy fuel oil made from imported crude oil	494.07	677.60	137.1

One tmp of various fuels, however, does not represent an identical use value. For example, when natural gas is used for production of thermal energy, the energy losses and the cost for the consumer are smaller than when solid fuels are used (there are no expenditures, for example, on the removal of ashes, on reduction of sulfurous pollutants and so on). On the basis of the preliminary research⁹⁾ the following relation is used: if the use value of one tmp of coal equals 100, then the use value of one tmp of natural gas equals 190.

Table 10 lists fuels according to the reproduction costs of a comparable unit of use value of various fuels used in the power plants in 1980.

Table 10

	Kcs	(Percentage of the cheapest fuel)
I. Coal from HDB	255.20	100.0
II. Coal from SHD	328.28	128.6
III. Imported natural gas	468.57	183.6
IV. Heavy fuel oil made from the imported crude oil	550.89	215.9
V. Coal from ULB	780.24	305.7
VI. Coal from KD	788.69	309.0

These costs and particularly the production costs of coal are average (for the entire concern). Within this average, the cost of extracting coal from individual shafts and individual deposits considerably vary. When calculating the advantages of replacing one type of coal for power plants by another, the maximum costs of extracting coal from the worst deposits are decisive. Particularly in long-term prospects there is enough room for achieving the best possible structure of energy resources, which are interchangeable in the long run, from the standpoint of minimization of cost of energy in terms of national labor.

Table 11 shows the trend in energy consumption in manufacturing in both physical and economic (monetary) units.

Table 11

	1977	1980	1980/1977
Energy consumption in manufacturing			
ktmp	141,073	146,973	103.5
million Kcs	94,810.0 a)	118,586.4	125.0
Average reproduction cost per tmp			
of energy consumption in manufacturing			
(Kcs)	667.80	806.86	120.8

a) The resulting national economic balance of intersectorial relations for 1977 values energy consumption in manufacturing at effective producer prices at Kcs 101,071.3 million. In this study, energy consumption in manufacturing in 1977 is appraised at actual reproduction costs Kcs 94.81 trillion or 6.2 percent below the above figure. The reproduction costs FOB customer exceed the prices of most solid fuels, gases and heat in the period surveyed. On the other hand, they are below the prices of liquid fuels and electricity.

Table 12 illustrates the trend in energy consumption in manufacturing according to the types of energy resources.

Table 12. Structure of energy consumption in manufacturing

	In physical units		in Percentage	
	(J)		In economic units	
	1977	1980	1977	1980
Solid fuels	44.7	41.7	27.0	24.6
Liquid fuels	31.7	32.1	22.9	26.3
Gaseous fuels	8.6	9.6	11.4	14.6
Heat	10.1	11.5	15.6	15.7
Electricity	4.9	5.1	20.1	18.8

In physical units, energy consumption in manufacturing increased 3.5 percent from 1977 to 1980 with an average yearly increase of 1.2 percent, but increased 2 percent in 1980 over the 1979 level. However, the average costs of national labor per tmp of energy consumption in manufacturing increased much more rapidly--20.8 percent--during this period. As an economic quantity, energy consumption in manufacturing is the product of multiplication of these two factors and their trends. It increased 25.0 percent during the 1977-1980 period or 7.7 percent annually on the average.

Such rapidly increasing energy consumption in manufacturing as part of overall consumption in manufacturing adversely affected the growth of the national income. The produced national income at current prices increased 15.7 percent during the 1977-1980 period or on the average 5 percent annually. Every percentage increase in the produced national income required a 1.6 percent increase in energy consumption in manufacturing. The ratio between energy consumption

in manufacturing and new values produced deteriorated. While energy consumption in manufacturing worth 1 Kes produced national income in the value of Kes 4.38 in 1977, this ratio declined to Kes 4.05 in 1980. If energy consumption in manufacturing, for the identical volume of national product were lower, that is, if our production were more efficient and less energy intensive, the produced national income could have been greater.

Meeting our energy needs, economy measures in the area of energy consumption (reduction of energy losses in the use of fuels), meeting some needs of the living standard (for example, individual motorism) and the need of raw materials for petrochemical production require imports of refined fuels (crude oil, natural gas and nuclear fuel elements). In order to pay for the same amount of crude oil and natural gas as we imported in 1973, we had to export approximately three times as much goods in 1980. Imports of refined fuels (and of all raw materials which we do not have) is for our economy economically demanding not only because of the increases in world prices, but also because our products and services are not always of the world standard in regard to technical progressiveness and quality. Moreover, as our high consumption in manufacturing indicates, our products are demanding both in terms of materials and energy and fetch rather low export prices per kilogram of weight. Financing of direct energy imports by exports of commodities manufactured in our country, of course, affects the difference between the produced and usable national income.⁵⁾

Moreover, procurement of energy significantly reduces the usable national income through the requirements for the accumulation fund. These rapidly increasing values earmarked for accumulation in the fuel-power industry cannot be used for increasing other productions and raising the living standard. In addition to the production of liquid fuels, uranium industry and factory power plants, water heating and air heating plants (teplárny a vytápny), the fuel-power industry participated 6.2 percent in the output of state enterprise sphere of the national economy ⁶⁾ in 1980, but accounted for 13.5 percent of the average value of capital assets at current prices in this area. Moreover, the requirements of the fuel-power industry for the means of production continue to increase rapidly. In the same year of 1980, for example, the above segment of the fuel-power industry accounted for 25.7 percent of expenditures on expansion investment projects in the enterprise sphere.

The state budget substantially subsidizes these investments. In 1980 alone, investment subsidies to this industry accounted for 43.3 percent of all investment subsidies from the state budget to the centrally managed state economic organizations.

On the other hand, the increasing national labor costs of domestic energy production point to the deterioration of qualitative indicators of management of the fuel-power industry and of its economic inputs and outputs. The fuel and energy deliveries in physical units (J) by the above sector of the fuel-power industry increased 5.3 percent during the 1977-1980 period. However, this increase in fuel and energy deliveries necessitated a substantially greater increase in the means of production and production factors. In this industry, the proper operating costs (at comparative prices) increased 18.5 percent and the means of production 24.6 percent. Returns on the means of production in the above segment of the fuel-power industry declined, at comparative prices, from 8.80 in 1977 to 4.40 in 1980 that is precisely to 50 percent.

Economy measures designed to solve the energy problem must be devised in physical units not only in order to keep consumption within the planned fuel-energy balance, but also in order to determine all important impacts of energy management on the national economy as a whole.

It is imperative:

- to optimize the energy acquiring processes and structure of energy resources in order to minimize the national labor cost of energy;

- to make energy consumption in manufacturing more effective by production of new values and earning more foreign exchange through commodity exports.

This is far from saying that the amount and increase in all costs of domestic energy production have been caused exclusively by the deteriorating objective conditions, worse mining-technical and location conditions, and worse quality of mined coal. The reserves, that is the ways of eliminating objectively unnecessary costs and of making necessary expenditures more effective lie particularly in:

- the choice of that method of development, preparation of and actual mining as will keep investments and operating costs at the minimum;

- designing the output capacities of power plants, heat plants and gas works in such a way as to make most effective use of them and to eliminate unnecessary investment expenditures and operating costs for the operator;

- the minimization of investment expenditures and optimization of returns on them, in designing the carrying out of investment projects;

- reducing energy losses in the processes of refining, conversion and distribution of energy;

- greater attention to the quality and necessary structure of fuel and energy supply;

- more efficient utilization of the means of production and particularly of mining equipment and installed power plant outputs;

- more economical use of materials and energy, for example, by reducing material losses caused by landslides, and in reducing energy and lubricant consumption in excavators and technological units;

- reducing labor turnover, particularly in coal mines;

- more effective utilization of working time.

The key to the solution of the energy problem is in more effective energy consumption in manufacturing resulting in greater net production and greater foreign-exchange effect in commodity exports. This calls for:

-the implementation of scientific and technical achievements;

-promoting, in the structure of production programs, the expansion of effective and less energy-intensive products to the detriment of less effective products;

-improving the quality and technical standard of our products;

-reducing material costs of our production in particular.

The mobilization of the above reserves calls for adequate measures in the area of management which can improve and permanently secure better management. This involves strengthening of economic elements in the management of the economy.

In the first place, it is necessary to strengthen the long-term nature of planning. The fundamental structural problems in the annual and 5-year plans are predetermined by the given structure of the means of production, investment projects already in progress, interstate agreements, structure of worker qualification and so on.

The improvement of planned management in securing a balance between needs and resources will necessitate the elimination of shortcomings resulting from the economically stronger position of suppliers and launching a struggle against the narrow scope of supply as well as against unnecessary production. Strengthening the target-oriented principle of planning to the detriment of the resources principle is also of fundamental importance in the power industry. The goal of planning of a fuel-energy balance is not a unilateral maximization of energy resources (which may be occasionally squandered so that there will always be a deficit), but conservation of energy and most effective use of energy consumed in final production. Also, in energy policy the principle of maximum satisfaction of needs with minimum resources must be reflected in the minimization of energy losses in energy-generating processes and in "final" energy consumption by appliances.

It will be necessary to underline the importance of calculations of the national economic advantage of various alternative solutions as the basis of decisions. It will, for example, be necessary to systematically and consistently compare, from the standpoint of national economic advantage, investments for expansion of the fuel-energy industry with investments necessitated by the measures designed to conserve energy and particularly with investments in the development of effective productions which can substantially reduce energy consumption in manufacturing.

At the same time, it will be necessary to emphasize the climate of moral and financial incentives, that is the climate of pressure (economic compulsion, responsibility, sanctions) and appeal (financial incentives, bonuses) and its impact of economic effectiveness. It will be correct in this context to apply several principles of the "Set of Measures for Improving the Planned Management System of the National Economy after 1980" in the fuel-energy industry as well.

It will also be correct in the fuel-energy industry:

...the principle that what is good for the national economy must also be good for every economic unit;

...to evaluate the economic results according to the criteria which pertain to the existing shortcomings. Moreover, evaluations must be done not only on the basis of compliance with the plan indicators, but also on the basis of comparison with the economic results achieved previously by the organization and with other comparable organizations in this country and abroad;

...to relieve economic organizations of the responsibility for financing their economic development, and to link their financial incentives also to the utilization rate of capital assets and of means of production;

...to grant subsidies from the state budget only in very exceptional instances and exclusively for the types of investment projects specified in advance.

Other projects of their planned development must be financed by the economic organizations from their own resources and/or bank credits;

...in principle, financial funds should not be redistributed (with the exception of redistribution necessitated by the different natural conditions in the coal industry).

The main and only road to the solution of the energy problem is the increase in efficiency of the entire national economy. The fundamental solution thus lies in the fulfillment of tasks assigned by the 16th CPCZ Congress which aim at the improvement of product quality, at the implementation of scientific-technical progress, at the intensification and higher efficiency of the national economy.

FOOTNOTES

1. We have selected here the period after the comprehensive revision of wholesale prices, in other words a period in which the prices are essentially comparable.

2. Although energy efficiency is affected by equipment and technology also in this instance. The quality of boilers usually works in the opposite direction.

3. It is also economically correct to evaluate energy consumption in manufacturing and not the primary energy resources in relation to the national income produced. For details see the author's article: "Notes on Some Methodological Tools of Analysis and Planning of the Fuel-Energy Industry," FINANCE A UVER, 1980, No. 10.

4. Cf. the Institute for Research on Fuels at Bechovice quoted in material APEV 14-6/1 "Prognosis and Comparison of Production and Total Social Costs of Basic Types of Fuels up to 1985," VUEPE [Institute for Research and Development of Electrical Machinery and Distributors] July 1978.

6. The foreign trade deficit in 1980 (according to the statistical data) reduced the produced national income by Kcs 3.2 billion at current prices.

7. Represented by the state economic organizations included in the financial plan.

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CZECHOSLOVAKIA

PLANT PRODUCTION CONTINUED IN LAG

Pravda, Moscow, Nov. 19, 1963, pp. 1, 2

(Article by Ing. Josef Polach: "The Development of Plant Production Has Priority.")

(Text) The seventh Plenum of the central committees of both the CPCZ and CPS evaluated how well our national economy was fulfilling and securing the economic and social program of the CPCZ in the first 2 years of the Seventh (5-Year) Plan, adopted at the 16th Party Congress to determine the intentions and objectives of the 1963 plan.

All large agricultural enterprises already know the tasks and limits planned for the year 1963 and then in elaborating them for implementation. What tasks for further working in the plant production does the plan prescribe for the third year of the Seventh (5-Year) Plan and what are the main objectives?

The priority of plant production development over animal production is the fundamental task. For this year, the plan requires an increase in gross agricultural production of 3 percent, of which plant production is required to increase 0.7 percent and animal production 0.4 percent.

A key task is to increase the production of cereals. This is related to the decision of the 16th Party Congress to increase self-sufficiency in grain fodder for animal production. In comparison with the last year's output, this year's yields are expected to increase 8 percent. The production plan remains at last year's level. To secure this cereal production primarily requires an increase in cereal harvest areas by 2 percent (17,200 hectares). The area for winter wheat cultivation for this fall is to be 6,000 hectares larger than last year. The plan also requires the areas for spring barley and grain corn cultivation to be increased. The most effective seed grains for spring cereals have been secured in sufficient amounts.

Another key task in plant production is to secure a sufficient amount of good-quality organic fodders in every enterprise without detriment to amount of area for cultivation of cereals and industrial plants. This is the only way to bring into balance the relationship of the plant and animal productions with our conditions, and to develop plant production ahead of schedule. We have caused ourselves in making better use of permanent grassy areas by heavily fertilizing them, by increasing yields from meadows, by expanding the growing

FEBRUARY

ARAB LEAGUE AGRICULTURAL DELEGATION ENDS VISIT

AU031320 Budapest NEPS LABADSAC in Hungarian 2 Feb 83 p 4

[Unattributed report: "Visit by An Arab League Delegation"]

[Text] Within the framework of cooperation between the agricultural organization of the Arab League and TESCO [a foreign trade enterprise], agricultural secretaries of state and deputy ministers of 10 Arab countries visited our country from 25 January to 1 February. During their visit, they acquainted themselves with results of water and soil management, agriculture and the number of agricultural experts in our country. They studied cooperation among the state, cooperative and private sectors and methods of state macromanagement. The delegation's members expressed the conviction that, following their visit, cooperation will further develop between their countries and Hungary, particularly in the area of water management, soil amelioration operations and on the basis of our participation in agricultural development programs. We could considerably contribute to the development of agricultural vocational training. They suggested that Hungarian experts should acquaint themselves better with the Arab countries' specific conditions, which would create further opportunities for participation in their development programs.

The Arab League agricultural delegation concluded its official program of activities on Tuesday.

CSO: 2500/150

INFLATION, BUDGETARY DEFICITS, MONETARY PROBLEMS DESCRIBED

Inflationary Curve, Budgetary Deficit

Warsaw 12 IE WARSZAWY in Polish 18 Jan 83 pp 1, 2

(Article by T.B. (own information): "An Avalanche of Wages Without Means of Expression; the Inflationary Curve Rises; 150-Billion-Zloty Budget Deficit; How to Suppress Inflation?"; date or place not indicated.)

[Text:] In the last quarter of last year we were deluged with money. Of course it was not bestowed on all of us, nor equally but it is a fact that producers of paper currency worked in exceptionally high gear during that period of time. Especially in December, enterprises surged with wage increases, 14th and even 15th salaries, special awards and bonuses.

Whoever possesses an economic imagination--because now it is not even knowledge--was not pleased with this unusual generosity, and at any rate not the way that wage increases and money in general should please. This stream of additional wages forecast nothing other than the rise of inflation to a yet higher level.

Apart from increased wages, it was impossible to detect an adequate increase in production and hence also in the supply of goods in the marketplace. In this situation therefore, rumors concerning the next price increases in the present year are not ordinary gossip but the result of logical and very direct reasoning.

This state of affairs was confirmed by Stanislaw Niecekarz, minister of finance, who together with Zygmunt Lakomicz, minister of internal trade and services, and Kazimierz Rusinek, vice-president of the Central Statistical Bureau [GUS], participated in a conference with the state's press spokesman on 17 January of this year.

Minister Niecekarz described the financial state of the nation as very difficult; however, in his opinion, the threat of a total breakdown in the financial system has already been averted. This unfavorable state is the consequence--in the opinion of Minister Niecekarz--not so much, nor only of foreign indebtedness but primarily of the unfavorable state of the economy. Last year the constantly struggling economy encountered an unparalleled avalanche of salaries lacking expression in goods, as well as labor productivity to which it

...the government is deliberately not going to intervene in the money market, ...the thing that should be done is to leave the money market to its own devices, ...the government is not intervening in the money market, which is the only way to ensure its stability.

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THE MONEY-MARKET SITUATION

...the government is not intervening in the money market, ...the thing that should be done is to leave the money market to its own devices, ...the government is not intervening in the money market, which is the only way to ensure its stability.

At the ... Money-Market Situation: Position, Expectations, ...

...the government is not intervening in the money market, ...the thing that should be done is to leave the money market to its own devices, ...the government is not intervening in the money market, which is the only way to ensure its stability.

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As a result of this, I have five significant results - that is, but - a. The first 4 findings are fully declared - it will not be addressed likewise with it in part. In the 5th, I don't have some results.

[illegible]

the other side of the road, in conditions of their importance or
of their place, with a new industrial method, according to the chief
of the Ministry of Finance, have constructive meaning. The decisive question
is the future of the nation.

There is a strong trend toward positive elements in apparent. Among other things, the low oil price has helped to offset anticipated increases in the cost of other commodities. Difficulties are approximately 500 million dollars in 1974. In 1975, the deficit may be 1 billion dollars. Total import and export balance is approximately 1 billion dollars. Total exports should rise to 1.5 billion dollars, production from domestic raw materials. In connection with the rise in consumption of raw materials, production of 1.5 billion dollars.

For the wage rate, there is no substitution will be independent, therefore, a change in the price of wine there can be no increase in the wine farm, unless there is an increase in manufacturing costs (e.g., wages and the opportunity cost of the labor, shift in the fertility of labor, and in the demand for wine).

1982 FOREIGN TRADE AND ITS SUMMARIZED

WARTSKA PRASA PRACOWNIA Nr 1, 15 Jan 83 p 17 of Supplement

Author: J. Kuczyński (Warsaw: "A Difficult Beginning")

The changes which took place in Polish foreign trade are a true reflection of what was taking place in the national economy during the last 12 months. As in the whole of the world, in foreign trade the most difficult period was the first half of the year, and particularly the first quarter, when in response to the introduction of martial law in Poland in December 1981, a large number of capitalist countries imposed various types of economic sanctions with respect to our country. The direct result of this was a violent break-down in commodity turnover between Poland and other countries, particularly in Polish imports from the developed area (capitalist countries). These restrictions had very negative effects on production in a considerable segment of the manufacturing industry, despite introduction of strict discipline and complete elimination of strikes. We did not succeed in halting the 18-month decline in industrial production. The basic, but not the only cause of this was the serious lack of imported raw materials, specifically, all types of coproduction elements and materials for production of manufactured goods, especially goods constituting consumer demand. In spite of the fact that the rate of decline stopped the month before last, the decline in production lasted nevertheless until the end of July. It was only in August that the situation changed. For the first time in over four years the index for sales of our products rose slightly. It was still below the level of 1981, but already constant increase in industrial production was maintained in subsequent months to the end of the year. As a result of the situation in industry was reflected also in foreign trade, especially in export. Beginning with the second half of the year, the decline in exports began to take on clear traits of permanence. As late as in July, exports were 2.7 percent lower than in the same period in 1981, but a year on August the index amounted to 119.1, in September 125.7, in October 131.7, in November 133.4, and in December 137. . In comparable periods, export increased during the past year in comparison with 1981 by more than 6 percent, while imports dropped by approximately 17 percent.

1982 foreign trade figures are approximate.

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INFORMATION CENTER FOR SLOVENIANS WORKING ABROAD

[1/22] ana DELO in Slovene 4 Feb 83 p 4

[Article by Jania Klasnic: "Better Informed Workers Abroad"]

[Excerpt] It seems that the many years of efforts for the return of our workers who are temporarily employed abroad will soon produce their first results. A workers' information center will be established in the Slovenian Economic Chamber where such workers will be able to get concrete information about possibilities for returning home. This was one of the matters discussed at today's session of the coordinating committee for problems of our workers who are temporarily employed abroad, in the presidency of the Republic, Council of the Socialist Association of Working People.

In the session, there were discussions about the acceptance of the social contract calling for the collection and return of monetary resources to the members of the community because of the creation of new employment opportunities and, in this connection, the establishment of an information center for Slovenians working abroad. All people will be interested in this center, not only such workers. They will learn about employment opportunities, openings in private industry, arising out of a need for certain products which we import today, which can be manufactured domestically; they will learn where there are opportunities for additional trade and possibilities for establishing ties with associated labor will be listed. The members of the coordinating committee supported the establishment of this center and the acceptance of the social contract. Attention was drawn to the fact that all signers of the country must prepare schedules for its implementation. The new center will be on Poljanski embankment in Ljubljana and it will be open every day except Sunday.

The members of the coordinating committee also discussed information programs for Slovenians abroad and the possibilities for resolving the problems of the specialized editorial staffs, arising during the execution of their assignments this year. All these editorial staffs are encountering unusual financial difficulties. For example, two years ago, the television editorial staff for Slovenians abroad had 2.5 million dinars available for its work; this year it has only 250,000 dinars. Since this editorial staff cannot carry out its mission without video cassettes, which are very expensive, it

work is very restricted. The review NAS DELAVEC [OUR WORKER] is also in an unenviable position since some signatories to the social contract financing this newspaper are withdrawing their support unilaterally. Therefore, the members of the coordinating committee for our workers who are temporarily employed abroad stressed that all signatories to the social contract must take care of their obligations on a priority basis. Similar difficulties are faced by RODNA GRUDA [THE NATIVE SOIL], the radio station and all others involved in providing information to Slovenians who live abroad. At the meeting we heard some proposals for the partial settlement of the financial difficulties, which is an urgent prerequisite for normal activity. The workers themselves may be able to contribute some money by means of their clubs and associations or it might be better to make an arrangement with the federal coordinating committee for workers abroad for contributions from the tourist union. These possibilities and, especially, means to achieve permanent solutions, will be treated in the framework of the working group of the republic committee for information.

(SLO) 2807/196

[illegible]

6. The EXPERTS are not in agreement in their opinion as to whether the

1000. According to the survey--the program of 1960--Iraq in 1959 has been completely fulfilled, and to a small degree even exceeded, since the Iraqis have not only left Iraq from the Professional Service of the Ministry of Commerce's Section of Iraq, these exports have reached about \$700 million, and will amount to slightly more than planned. The imports from Iraq are amounting to about \$100 million, and amount to about \$100.8 million, also according to the survey. Iraq, i.e., about 10 percent less than planned.

The principal export commodities are transport equipment (worth about 1.5 billion dollars), metallurgical products (818 million), chemical products (816 million), consumer products (80.7 million), textiles and textile products (79.7 million), electrical machines and equipment (7.6 million), products of food industry (6.1 million), products and crafts (5.9 million), wood and various products (5.1 million), etc.

Our export of goods in 1981 will not change much, but there will be increase in certain items associated with products required for the completion of the 1981-82 plan in Japan, being built. In addition, some items for which we will be making considerable changes, we can cite agricultural products for \$15 billion, leather articles for \$20 million, petroleum products for \$25 million, textiles and textile products for about \$50 million, chemicals and glass for \$10 million, metal products for \$50 million, electrical machinery for \$45 million, transportation equipment for \$40 million, other miscellaneous equipment for \$45 million, furniture for about \$15 million.

On the other hand, the U.S. has a comparative advantage in textiles and clothing. In addition, the U.S. has a comparative advantage in the production of capital goods, such as machinery, since it is naturally wants to intensify the exports of such goods. It is important to find countries with which it has more trade in such cases. It has a comparative advantage in such goods as machine-made carpets, section blinds, various types of shoes, metal pipes, and some other products, with a total value of \$1.2 billion.

and $\beta \in \mathbb{R}^n$ is a vector of regression coefficients. The model is fitted by minimizing the sum of squares of the residuals, $\sum_{i=1}^n (y_i - \beta'x_i)^2$, where $x_i = (1, x_{i1}, \dots, x_{in-1})'$ is the vector of predictors for the i th observation. The least squares estimates of the parameters are given by $\hat{\beta} = (X'X)^{-1}X'y$, where $X = (x_1, \dots, x_n)'$ is the matrix of predictors and $y = (y_1, \dots, y_n)'$ is the vector of responses.

1. The first of these is the fact that the United States has a large and growing surplus of goods and services. This surplus is the result of a combination of factors, including a high level of productivity, a large and growing population, and a strong and growing economy. The surplus is a source of strength for the United States, as it allows the country to export goods and services to other countries, thereby increasing its economic power and influence.

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1. *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Staphylococcus saprophyticus*, *Staphylococcus sciuri*, *Staphylococcus carnosus*, *Staphylococcus hyacinthi*, *Staphylococcus* sp.

DOI: 10.1002/for

But, as a frank realist: "Realism? I can do for the geometries!"

1981. To write. It is not the efforts of the new year's learner projects to supply the market with oil derivatives, it is still unknown today whether it will be possible to avoid last year's misfortunes.

For example, last year's unfortunate scenario is being repeated in the present one. The Energy Balance for this year, with fair prospects for the outlook for the equally remote, is in total with the disparity between the oil and coal needs and the balance that the Oil and Coal Administration is proposing on the basis of an estimate of the payment capabilities. While last year this disparity only amounted to a million tons of oil, the industry has said that 11 million tons be imported, but 10.1 were required, but now for all imports, as proposed by the Energy Balance, could be 10.1 million, while the oil industry estimates that 11.1 million would be imported. Obviously the disparity between the requirements and capabilities is even greater.

For the time being, the others consider the estimate that 4.4 million tons will be needed for domestic oil fields to be unrealistic, since because of the dependence of the oil supply with foreign exchange for importing the necessary materials and imported equipments, the production of oil and gas is already stagnating, let alone declining. The producers of domestic oil expect to offer 4.25 million tons to the market. Thus, with imports of 3.6 million tons, 11.55 million tons will be required for refining. With the planned imports of a million tons of electricity, this year we would have about 14.7 million tons of derivatives, 10.0 million tons more than last year. The General Association of the Oil Producers of Azerbaijan, in cooperation with the oil industry organizations, claims that this year the country will need as much as 16.3 million tons of derivatives. They are well and in mind the real needs of the country and the need to conserve oil with extreme conservation.

... on the part of the Imperial Transvaal's Social Plan
... for Whites, provide for an increase in industrial

	1948	1949	1950	1951	Index
Crude oil	1,000	1,000	1,000	1,000	100
Gasoline	1,000	1,000	1,000	1,000	100
Distillates	1,000	1,000	1,000	1,000	100
Residuals	1,000	1,000	1,000	1,000	100
Other petroleum products	1,000	1,000	1,000	1,000	100
Total	1,000	1,000	1,000	1,000	100

Figures are preliminary estimates and estimates until the end of the year.

Table 1. Petroleum Derivatives (in thousands of tons)

Derivatives	1948	1949*	Index
Crude oil	2010	1814	90
Gasoline	1111	1111	100
Distillates	1205	1205	99
Residuals	5643	5524	98
Other petroleum products	385	392	103
Total	1117	1117	100
Crude oil	114	114	100
Gasoline	119	119	100
Distillates	114	114	100
Residuals	114	114	100
Other petroleum products	114	114	100

* Figures are preliminary estimates until the end of the year.

Table 2. Motor Gasoline (in thousands of tons)

	Total consumption	Consumption per Automobile
1948	1111	100
1949	1111	100
1950	1111	100
1951	1111	100
1952	1111	100

* Figures are preliminary estimates until the end of the year.

of the Ministry of Energy and Fuel Technology.

At the same time, the Ministry of Energy and Fuel Technology, on 17 February 1980,

issued a decision on the construction of new oil refining capacities in the country. The decision provided for the construction of about 1.5 million tons per year, and were then to be used for the production of oil products. It was also used for thermal conversion and its use in the production of electricity. It was also noted that at that time certain sections of the existing capacities of the Josinski Brod, Sisak, and Rijeka refineries, although they were not modernized, were in fact worn out and were technologically obsolete.

In the medium-term period, the creation of new capacities was to be limited to certain increases, while the demand for oil products for the country was to be met primarily, so that recently refinery capacities have been reduced. A contributing factor, of course, has been the slowed development of the country's oil derivatives, along with the well-known difficulties in the country in obtaining oil imports because of foreign exchange problems. All the projects being that this trend will be maintained until the end of the medium-term period.

After the 1970's, when the need for primary refining after the 1970's were not met, the country's growing needs for oil products, new ones were constructed, and the total already amounted to a total of almost 17 million tons, and in 1980, 1.5 million tons per year. It must be noted, however, that although the construction of primary capacities, the old and worn-out capacities were not modernized at some refineries.

In the construction of refineries the construction of new installations is being completed, while at some others it is in the final phase, so that from 1980 to 1985, this year, and before the end of the medium-term period, the country will have 1.5 million tons per year. It is worth pointing out that the construction of new capacities at the Jadranski refinery has been halted, and the construction of a refinery in Slovenia, with a capacity of 8 million tons per year, and in Serbia, with a capacity of 3.5 million tons per year, has not yet started.

The country's oil refining capacity in 1980, in primary oil refining, was 1.5 million tons, and in 1985, it will be 3.5 million tons. The country's oil refining capacity in 1980, in secondary oil refining, was 1.5 million tons, and in 1985, it will be 3.5 million tons.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

CEREALS AND GRAIN

(Continued from newspaper "Sovetskoye Slovo" 27 Jan 83 p. 1)

According to the USSR State Statistical Bureau, deputy president of the federal statistical committee, this year it is planned to meet domestic needs for grain and grain products, with the exception of sunflowers and soybeans. Winter wheat and rye will be planted on 57,000 hectares; the area added to that planted in the fall of 1982 is 10,000 hectares. The total production of wheat, figuring an average yield of 13.5 tons per hectare, will be 7.7 million tons. Of this total production, 3.25 million tons will be used for consumers, thus satisfying domestic needs.

The area of winter wheat is 1.29 million hectares (with a per-hectare yield of 13.5 tons) and 1.69 million tons. If 170,000 hectares are planted (as planned), production would be 7.8 million tons, or 1.1 million tons in excess of domestic consumption in addition to providing a reserve of 1,000,000 tons.

Grain production should exceed the 1982 estimate of 1,387,000 tons by about 10%.

Grain and grain products are expected, except for a small part of sunflowers, vegetables, and feed crops, which must be imported. However, it is necessary to improve the work of the seed development service, and to increase the use of sunflower seed, the inadequate use of hybrid corn, and the use of wheat varieties, and small percentage of grain products are resulting in reduced acreage and lower yields.

There is a 10 percent less mineral fertilizer than planned. There are serious problems in providing the foreign exchange needed to import fertilizer and our country occupies last place in Europe in the quantity of fertilizer used per unit of area (110 kg). In addition to the need to import raw materials for fertilizer production, we must also import finished fertilizers, \$40 million for insecticides, and \$10 million to purchase spare parts.

since about 600,000 tons of protein animal feed is imported annually for
and about 250 million is spent, a solution is seen in the providing of
funds to reconstruct edible-oil-production and other facilities to increase
the production of meat meal, fodder meal, and crushed sunflower seed.
Intensifying hay production will, in addition, be one of the means of
increasing animal feed.

There is a possibility this year also for continued growth in exports of
agricultural and food products. The plan calls for \$1,363,000,000 worth of
goods (an 8.2 percent increase over last year) to be exported through
[specific] funds; overall exports should total \$1,500,000,000 in value.

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BRIEFS

CREDITS--At present \$1.4 million and 471,000 DM in credits to modernize and develop small business in Slovenia remain unused at the International Finance Corporation in Washington. Much is being said and written about how necessary small business is for us, that it offers great possibilities for employment. But still these [credits] remain unused.... What is involved here? Up to now \$4 million of the credit, strictly earmarked [for small business development], has been distributed to small business in Slovenia. The unused credits represent the remainder of credits which small businesses in other republics could not use, so they were given to Slovenia. According to the general association of small business of Slovenia, part of the reason [they have not been used] is the very strict criteria for approving funds from this credit. The credits are strictly earmarked and only for production in which exports are being increased or imports are being reduced, and repayment is possible only in foreign exchange. Those who would be interested [in getting them] are also afraid of the consequences of increased interest [rates] on dinar credits because this will make repayment also more difficult for dinar credits. [Excerpt] [Belgrade BORBA in Serbo-Croatian 29 Jan 83 p 14]

FERTILIZER NEEDS--This year about \$192 million is needed to import raw materials needed for fertilizer production; this includes \$107 million for spring planting alone. It is still not clear how this will be provided. Fertilizer consumption is planned in 1983 in the amount of 3,226,910 tons, including 968,023 tons of KAN [calcium ammonium nitrate], 233,231 tons of urea, 2,011,656 tons of NPK mixtures, and 13,000 tons of superphosphate. For spring planting alone the following amounts are planned: 622,141 tons of KAN, 161,333 tons of urea, 1,113,758 tons of NPK mixtures, and 7,000 tons of superphosphate. This consumption largely corresponds to the present per-hectare use (a little more than last year), but the foreign exchange situation does not support this plan. [Excerpt] [Belgrade PRIVREDNI PRIORED in Serbo-Croatian 8 Feb 83 p 8]

GAS CONSUMPTION, PRODUCTION--In 1982 about 2.36 billion cubic meters of natural gas were produced; this year the plan calls for production of 2.5 billion cubic meters, in addition to 2.5 billion cubic meters to be imported from the USSR. According to the agreement on the bases of the 1981-85

in oil plan, natural gas production in the country should increase an average of about 22 percent. By 1985 a production of 5 billion cubic meters should be attained, and this year 3.35 billion cubic meters should be produced. However, neither this plan for domestic production nor for Soviet imports will be met, only 2.5 billion cubic meters instead of 3 billion cubic meters of gas will be imported from the USSR. [Excerpt] [Belgrade SRVSRW] Part II in Serbo-Croatian 11 Feb 83 p 8]

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